A CALL FOR COMMUNITY GOVERNANCE:

WIND ENERGY IMPLEMENTATION IN ALBERTA THROUGH STRATEGIC ENVIRONMENTAL POLICYMAKING

by © Emma Hudson A Thesis submitted

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Abstract

The transition towards green energy systems is a highly debated topic. While Canada promises sustainable changes to ensure climate change targets are reached, such efforts are not transpiring on the provincial level. This paper analyzes the difficulties of Alberta's acceptance of wind energy, a strong contender for a green energy alternative, and possible solutions through community governance and strategic environmental policymaking. I provide two research questions that ask for an explanation of the resistance to wind energy in Alberta and what the opportunities are for community governance. To answer these questions, I present governance and ideology as obstacles to successful wind energy implementation. These factors possess fundamental and deeply-rooted origins. While policy efforts have been made to reduce carbon emissions, the general lack of acceptance of wind energy has created a province in stagnation - unable and unwilling to change amidst the federal and global appeals. By analyzing secondary literature, a governance typology, and a comparative policy analysis, this paper illustrates the benefits of a community governance, and community renewable energy (RE) by extension, for renewable energy implementation in contentious regions. Community governance presents a potential answer through policymaking methods that focus on citizens' participation and collaboration. The results of this paper argue that the governance and ideology challenges constraining renewable energy in Alberta can partly be addressed through community governance and strategic environmental policymaking. From this, this paper urges the necessity of approaching climate change mitigation through adaptive approaches.

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Chapter 1: Introduction

[T]he most important, difficult, and neglected questions of energy strategy are not mainly technical or economic but rather social and ethical. They will pose a supreme challenge to the adaptability of democratic institutions and to the vitality of our spiritual life.

Amory Lovins (1976: 95)

Canada's position in relation to renewable energy transition is perplexing. On one hand, energy alternatives offer a pathway to withdraw from a reliance on fossil fuels. On the other hand, Canada's high consumption of fossil fuels, one of the highest global consumers per capita (Dehghani-Sanji et al., 2022), presents a challenge for transition. Wind power, in particular, is a promising renewable energy. Compared to fossil fuels, it offers lower carbon emissions and competitive prices. The Government of Canada promises to fight climate change, yet the country's federal structure presents a challenge with energy policies being governed by provinces and territories. Each province and territory maintain agency over implementing energy projects, regardless of federal policies and programs. This thesis examines Alberta's resistance to wind power and the challenges posed by the provincial context.

Academic work has been dedicated to understanding the benefits and challenges of wind power in Alberta. Many scholars argue that the traditional form of governance cannot successfully support the implementation of renewable energy. There are various strategies to strengthen support for wind energy; however, my research will focus on the potential of community governance and strategic environmental policymaking. This work will explore the possibility of implementing community governance as a policy strategy to help resolve obstacles surrounding wind energy in Alberta. The western province has the potential to develop wind energy, which would contribute to the global shift towards renewable energy, however, barriers

are preventing this change. This analysis will explore alternative policy strategies' feasibility for the acceptance and progression of wind energy. In doing so, I will answer the following questions;

(I) What helps to explain the resistance to renewable energy in Alberta, specifically wind energy?

(II) What are the opportunities for community governance, especially community energy governance?

I will answer these research questions by examining the current governing and ideological challenges to wind energy transitions. With this, I argue that governance and ideological challenges constraining renewable energy in Alberta can partly be addressed through community governance and strategic environmental policymaking.

1.1: Overview

Technology is available to ease the effects of climate change, notably the ability to harness alternative renewable energy sources. However, as Hoff and Gausset (2015) explain, the "challenge of climate change mitigation is, therefore, first of all, a problem of governance" (2). The traditional governing framework and provincial reluctance to effectively combat climate change puts politics into focus. The transition to renewable energy and away from fossil fuels creates opportunities for various institutions and governance models outside the present state and market systems. Scholars and policymakers alike have deliberated on the best action to improve wind energy progress in contentious regions. In this respect, I will explore the role that community governance can play within wind energy policymaking. Specifically, I will investigate how policy can be utilized to leverage wind energy development and as a tool of mitigation and feasible adaptation.

The thesis will answer two important questions on Alberta's governance model and Alberta's RE transition, especially through wind energy. First, what helps to explain the resistance to renewable energy in Alberta, specifically wind energy? I plan to structure my thesis to clearly illustrate that governance and ideology are obstacles for wind energy implementation in Alberta. Next, what are the opportunities for community governance, especially community energy governance? I will demonstrate that, despite its advantages and disadvantages, community governance has the opportunity to bring forth sustainable mitigation. This can be approached through community renewable energy (RE), which focuses on strategic environmental policymaking. I will demonstrate how a new framework can respond to the challenges of wind implementation. In summary, the main argument of the thesis is that the governance and ideological challenges that are constraining renewable energy in Alberta and can partly be addressed through community governance and strategic environmental policymaking. These research questions and methods of research will support this statement.

1.2: Methods & Methodologies

This thesis will utilize several methods to explore energy governance in Alberta and support my research argument. First, I conducted a secondary literature review that focused on the theoretical research on community governance. The literature review presents community governance through a variety of scholars to define and inspect its advantages and disadvantages. The combination of scholarly secondary sources helped frame the theoretical potential of community as a potential answer to mitigate wind energy policy in Alberta for climate adaptation. However, this approach is tentative. Community is a benign societal component that can be used to humanize governance, however, the vulnerabilities of wind energy

implementation in Alberta questions the ability of the community as a solution. These impediments will be acknowledged and addressed through secondary academic literature.

To frame the thesis, I implemented a governance typology by using Bednar and Henstra's (2018) typology, which provides a comparative analysis of different forms of governance. The forms that I examined were market, hierarchy, and community governance. This analysis, founded upon Bednar and Henstra's (2018) work, was used in multiple ways. In particular, the typology situates community governance in comparison to other forms of governance. The typology helps to illustrate how particular forms of governance create specific environments for wind energy both welcoming and as a hindrance. Later chapters will further explore this, specifically correlating market governance with fossil fuel dependency and hierarchy governance with anti-environmentalism. While market and hierarchy governance can be an obstacle to wind energy, community governance creates opportunities to alleviate significant barriers. This ultimately illustrates the notion that policies depend on the form of governance. The comparative analysis of Bednar and Henstra's (2018) typology was helpful in analyzing the governance of energy and what role the community can play.

Following this, I used a comparative policy analysis of renewable energy policies and initiatives implemented by the Alberta provincial government between 2010 to 2022. The general strategy utilized a comparative provincial adaptation policy analysis to study the content and motive of renewable energy policies. This section relied on Vogel and Henstra's (2015) research for comparative policy analysis and climate adaptation. I used deductive methods to examine shared fundamental elements of public policies, such as goals, targets, instruments, and agents (Vogel & Henstra, 2015: 111). This section compares these elements in three categories based on former Premier Rachel Notley policy actions; pre-Notley's government (2010-2014),

Notley's government (2015-2019), and post-Notley's government (2020-2022). Comparing what the policies aimed to achieve will showcase an evident outlier during Notley's government, in which aspects of community governance were implemented. This analysis contributes to my theoretical inquiry on community governance's ability to be a climate change adaptation tool to address the obstacles surrounding Alberta's wind energy. The examination is fundamental to discussing the scale of community governance and the abilities of strategic environmental policy making.

Cumulatively, the secondary literature, governance typology, and comparative policy analysis advance the discussion of how different policy scales affect renewable energy implementation. These research methods can help to understand energy governance and the mitigation of the issues pertaining to implementation. The secondary literature presents the theory of the role of community within governance, the typology situates community governance as a potential approach, and the policy analysis showcases its plausibility in the context of Alberta. A significant reason why Alberta is not transferring energy systems is that the approach to governance needs to be more diverse to meet these new demands. New energy resources require new policy strategies based on alternative governance modes. These methods present community governance as a strong contender.

To examine the potential of community governance, I will organize the thesis as follows. Chapter 2 will discuss community governance through a literature review to analyze the concept of community governance, specifically defining it, and showcase its advantages and disadvantages. Next, I will implement Bednar and Henstra's (2018) governance typology. This typology will illustrate the types of governance in comparison to community governance and

illustrate their theoretical approach. From this, I will present community RE as an extension of the typology to introduce a possible implementation strategy for Alberta.

Alberta presents a variety of challenges to renewable energy transitions. Despite past efforts and recent increased corporate wind energy projects, the province's wind energy implementation remains slow. Considering this, I present two barriers that originate from differing circumstances but are both obstructions to feasible policymaking. Chapter 3 will explore governance as the first issue. I will provide context of the current provincial government structure by comparing natural resource policy in Canada and Alberta. The chapter will then implement a comparative provincial adaptation policy analysis of renewable energy policies between 2010 and 2022 to illustrate a slow progression towards RE. I will then analyze fossil fuel dependency in Alberta, which is a significant barrier to the transition to wind RE. I will explore why fossil fuel dependency is an obstacle for wind energy implementation and how it showcases governance as a challenge. From this, the chapter will analyze how community RE and strategic environmental policymaking could approach this issue. Lastly, this chapter will focus on a period of mitigation during Notley's government that utilized similar tenets of community governance from the comparative policy analysis. I will discuss the Climate Leadership Plan (CLP) and the Renewable Energy Program (REP) to explore the policies alongside community governance and its scale. Revisiting Notley's policy initiatives will demonstrate that components that share community governance qualities have been implemented in the past to illustrate its future potential given the proper policy resources. The purpose of this chapter is to demonstrate governance as a significant obstacle and argue community governance's ability to mitigate through strategic environmental policy making.

In chapter 4, I will present ideology as the second constraint to wind energy implementation in Alberta. I will illustrate the ideological challenge with a focus on anti-environmentalism - a dynamic movement that is opposed to climate change action. The chapter will showcase how anti-environmentalism affects local acceptance to wind energy projects by specifically discussing the general disbelief of climate change, restricted knowledge sharing with projects, and vocal anti-climate action organizations as advances of anti-environmentalism in Alberta. Similar to the previous chapter, I will discuss how this challenge has been able to grow through the provincial political structure and how it can be addressed through community RE. Anti-environmentalism is a complex ideological movement with practical consequences. Because of this, I will discuss the feasibility of community RE within a convoluted setting. This will be done by using individual assessment and government intervention as exemplified factors that need to be considered while discussing the scale in which community RE can be implemented. Basing this section on Notley's RE initiatives, I will advocate for methodical integration of community governance through strategic environmental policy making to alleviate deeply-rooted and polarizing beliefs. The purpose of this chapter is to present a significant ideological constraint to wind energy implementation in Alberta, and how an intricate restraint needs to be addressed through strategic policy making that community RE can provide.

Given the proper policy strategies and adjustments, the province is in a pivotal moment where there is active potential to change. By bringing forth a potential governing solution that could mitigate the significant barriers presented, this paper aims to showcase that alternative approaches to policy frameworks are necessary to create sustainable climate change mitigation and development through green infrastructure. From this, I will argue that the governance and

ideological challenges that are constraining renewable energy in Alberta can partly be addressed through community governance and strategic environmental policymaking.

Chapter 2: Community Governance and Theory

[T]he call for "community governance," [presents] an opportunity for us to look again at our deeper relationships with one another — relationships that go beyond the oppositional thinking of dependence and independence. Community governance is an opportunity for us to reclaim the "we" in our lives.

Vivian Hutchinson (1999: 2)

Community governance challenges the established hierarchy of leadership and presents a separate structure for renewable energy development. This chapter reviews secondary literature to examine community governance as a potential system. I will first explore the theoretical and conceptual aspects of "community." This will entail an exploration of community within the political and sociological sphere and an examination of the variety of roles it can play within a structured society. Next, I will apply a typology of governance modes based on Bednar and Henstra's (2018) work to examine the practical scale of community governance. Bednar and Henstra's (2018) typology helps to explain the potential of policy reform to encourage sustainable energy. To further this discussion, I will include community governance's opportunities and challenges, as presented by the typology and multiple academic scholars of governance. The comparison helps to illustrate that while community governance is a possible governance framework, it cannot be deemed a perfect solution for all circumstances.

Once community governance is established, I will discuss the role of scale by presenting an extension to the typology with community renewable energy (RE). Recognized as a by-product of community governance, community RE specifies the aspects of community governance in the context of renewable energy through integration. From this, I will extend Bednar and Henstra's (2018) typology. My aim is to provide a specific and practical community-based approach toward wind energy implementation in Alberta. The goal of this chapter is to

begin a response as to what the opportunities for community governance are in Alberta. The chapter will introduce community governance as a governing model that can help to address obstacles surrounding wind energy implementation.

2.1 Community through a Conceptual Lens

This section analyzes community governance through a conceptual perspective beginning with "community." Political scientists and sociologists have contributed to defining what community is. The term community can be understood in various ways by its functions. For instance, there is a common distinction between *relational* and *geographical* communities (Totikidis et al., 2005: 3). Whether through a shared identity or place, the concept of community has the potential to formulate locality. As Somerville (2016) explains, what makes a community unique is "the existence of common *attachments* and the common construction, maintenance and *recognition* of those attachments" (4). Community can define many things for involved individuals. Notably, it can characterize how they participate and respond to issues within their identified space. This capacity allows for the creation of structures and institutions that simultaneously shape the actions of those involved (Flora et al., 1992: 14). As a result, the use of community frames governance in specific ways. "A discussion of community and governance draws us to the issue of social structure" (Taylor, 2019: 19). In this sense, community can be viewed as a critical part of good governance - in which they can succeed where individuals alone, markets, and governments fail (Bowles & Gintis, 2002: 21).

In this sense, community appears to be clearly defined, yet it remains a theoretical concept that can be applied to countless situations. Cochrane (2011) explains the complications that can arise when using the general idea of community separately, as it is "expressed in radical or conservative forms; defined by how it is used in different contexts rather than having any

overarching meaning, beyond the feeling of warmth it gives as a cultural comfort blanket" (1017). The utilization of community can be an ideal and easily applied practical solution. However, can the theoretical and the practical come together? Can aspects of community be applied to reach rational outcomes? With this, I situate community governance as an alternative governing framework to address renewable energy. I will suggest and explore community governance as a compromise between ideological and practical ideals.

2.2: Governance Typology

I will apply a typology of governance modes based on Bednar and Henstra's (2018) work to explore the characteristics of community governance and examine its capability of addressing wind energy implementation in Alberta. Using their work, I classify community governance along with other forms of governance - (1) hierarchy; (2) market; and (3) community, depicted in *Figure 2.1*.

	Hierarchy	**Market**	**Community**
Direction of Authority	Top -down	Circular (supply and demand)	Bottom-up
Initiating and Implementing Actors	Federal, regional and local governments	Government and market actors	Citizens, community groups, neighbourhood associations
Dominant Policy Instruments	Legislation and regulation	Supply and demand; government market intervention	Self-regulation, voluntary participation

Figure 2.1: Governance typology, Bednar & Henstra, 2018: 151.

As illustrated in *Figure 2.1*, Bednar and Henstra (2018) categorize forms of governance through classification. Adaptation initiatives, such as climate change and energy, do not always follow one form of governance strictly; the type of governance may mix or shift altogether (Bednar & Henstra, 2018: 149). Therefore, the typology presented allows for further analysis of the interconnections between forms of governance.

There is much to understand from Bednar and Henstra's typology. While the characteristics of the forms of governance differ in *Figure 2.1,* Bednar and Henstra's (2018) depiction of community governance presents a unique approach to governing and climate change adaptation. Unlike hierarchy and market governance, community governance reverses the role of policy making, in which community members and local governments are in control (Bednar & Henstra, 2018: 151). Renewable energy policy follows aspects of both hierarchy and market governance, and the negative effects of this will be explored in later chapters. Nonetheless, Bednar and Henstra's (2018) typology illustrates community governance as an opportunity to address what is absent in current renewable energy policy - "what community governance chiefly provides to the typology is the capacity to conceptualize localized or upward-moving authority that is otherwise missing in the downward, circular, or flat directions of the other modes" (151). Renewable energy is a comparatively contemporary resource that governments and policymakers have to undertake. This circumstance requires alternative methods of approach that ensure sustainable outcomes.

When addressing my second research question, Bednar and Henstra's (2018) typology constructs a theoretical approach to varying governance structures. The question of what are the opportunities for community governance in Alberta can be partially answered through *Figure 2.1* as it brings forth the idea of reconstruction. Renewable energy for climate change adaptation is a

contemporary factor of mitigation policy. With this, new energy systems cannot be implemented with traditional governing frameworks. New policies deserve new approaches that can address the fundamental challenges to renewable energy in Alberta. Strategic environmental policymaking through community governance invites sustainable mitigation through a new outlook.

2.2.1 Defining Community Governance

Bednar and Henstra's (2018) typology present main characteristics of community governance, but how can it be interpreted? As Bednar and Henstra (2018) explain, community governance "reverses the roles found in hierarchical governance, whereby community members and local governments develop policy" (151). Similarly, Totikidis et al. (2005) define the concept as a level of management and decision-making coordinated by community members and stakeholders that emphasizes the role of local government (n.p.). *Figure 2.2* details the perception of community governance along with other forms of collaborative arrangements for policy initiatives.

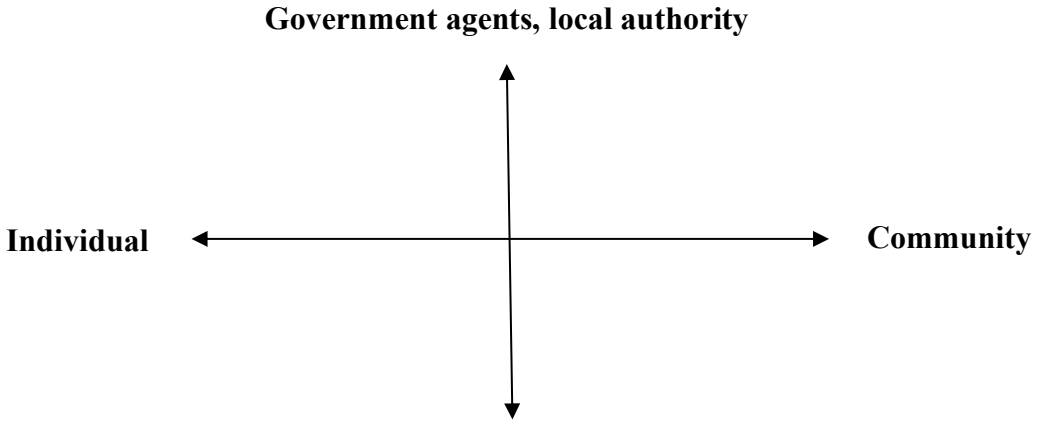

Figure 2.2: Potential approaches to climate change mitigation, Hoff & Gausset, 2015: 3.

The concept of community governance can be analyzed through its differing characteristics. Before exploring these variations, it is first important to examine Clarke and Stewart's six principles of community governance. Clarke and Stewart are commonly regarded as establishing the theory of community governance in academic literature (Totikidis et al., 2005: n.p.). In 1998, they formulated six defining principles of community governance. These principles are foundational to the definition of community governance that subsequent academics have expanded on over the years. *Figure 2.3* highlights these features;

1.	The concern of government extends well beyond the services provides to the overall welfare of the area.
2.	Government's role in community governance is only justified if it is close to and empowers communities and their citizens.
3.	Government must recognize the contribution of other organizations – public, private and voluntary and see its task as enabling (not controlling) that contribution.
4.	Government should ensure that the whole range of resources in a community is used to the full for the good of its area.
5.	To make the best use of those resources, there must be ongoing review (learning) as to how needs are best met and a willingness to act in innovative ways.
6.	In showing leadership, the government must seek to reconcile, to balance and, in the final resort (when it is the funder), to judge the diversity of views and interests.

Figure 2.3: The six principles of community government, Clarke & Stewart, 1998. Summarized by Richardson, 1999: n.p.

Figure 2.3 illustrates various principles, but they share similar themes of collaboration and empowerment. Multiple authors highlight the idea of collaboration as being a robust characterization of community governance. For Armstrong et al. (2004), the initiation of

community governance requires some form of "collaboration and marshaling of resources" (n.p.). They explain that complex issues affecting communities must be solved through collaborative policies based on relationships and accountability (Armstrong et al., 2004: n.p.). Diamond and Weiss (2016) expand on this notion by stating that addressing problems with collaboration through community governance would improve overall quality of life (3). These explanations put forth a meaningful narrative, where the concept of community governance is regarded as an intriguing and alluring structure that brings low-level actors together. Clarke and Stewart (1992) characterize community governance as empowering as it creates an opportunity for a powerful framework of democratization (23). Community governance can be perceived as a support of the fundamentals of democracy.

Because of its empowerment of the communities, Clarke & Stewart portray community governance as the highest degree of democratization (Somerville, 2005: 120). Similar portrayals of democratic community governance functions are in Australia's government development. Victoria, Australia has actively incorporated the roles of local government into various aspects of communities' well-being, specifically "involving the community in determining the needs and priorities of their area" (Pillora & McKinlay, 2011: 11). O'Toole and Burdess (2004) explore the specific use of community governance following the municipal amalgamation of many rural jurisdictions. These small communities lost notable legal, financial, and political resources connected to their former municipalities (O'Toole & Burdess, 2004: 433). Significant aspects of community governance were engaged through policy to encourage the sustainability of affected communities (O'Toole & Burdess, 2004: 433). This policy decision can be correlated to the Bracks Labor government initiative "to redefine good governance and to embrace engagement" (Pillora & McKinlay, 2011: 11). Through giving the affected communities resources, the federal

and state governments created an opportunity for these smaller communities to exclusively solve their specific issues. This was primarily orchestrated through self-governance, but aid was provided by agencies if needed - "[h]igher levels of governance 'steer' the self-governing processes of small rural communities, expecting them to 'row' for themselves" (O'Toole & Burdess, 2004: 433).

The importance of community governance lies in the fact that it has the potential to mitigate issues at a localized level, as demonstrated in Victoria. Similarly, Clark and Stewart (1998) stress that power and authority must be as close to citizens and their communities as possible to resolve local issues (n.p). Scholars have recognized this need for change. Hutchinson (1999), for example, expresses the necessity for community-building, support, and connection, which is called for within the current governing landscape that has been weakened (1). Similarly, Gates (1999) uses community governance as an answer to citizens' loss of trust in political institutions and leaders, where they ultimately feel that they are now unresponsive (520). These scholars present community governance as a fallback when the traditional framework needs to be revised.

2.3 Opportunities & Challenges of Community Governance

The advance of community governance in academic studies has brought forth much discussion of the practicalities of the concept. Various scholars argue for a more substantial consideration of the framework by illustrating its benefits, while others deem this alternative to be merely speculative. To explore community governance, this section will review a variety of perspectives from the popular discourse. Once I establish these arguments, I will present frameworks that specifically relate to the case study of Alberta, Canada.

2.3.1 Local Solutions for Local Problems

The emergence of community governance has intrigued various scholars due to its structure of changing traditional frameworks and high-level policy actors. After examining a range of works, I address two arguments in favour of community governance - (1) it has the capability as an alternative to the status quo and (2) it possesses long-term benefits. With this, I will review how scholars examine these two aspects of community governance.

Community governance is a response to ineffective governance. While a top-down approach holds significance in numerous ways, lower levels of authority are needed within policymaking. Top-down approaches limit community actors' ability to create policies that will influence their jurisdiction. Hutchinson (1999) expresses the inability of the traditional framework to address the complexities of local issues - “we are kidding ourselves if any one individual or agency thinks that they are at the helm of any authentic solution” (3). Comparatively, Totikidis et al. (2005) present similar reservations, alluding to the prioritization that traditional governance has towards corporations over community which leaves little room for lower-level participation and prosperity in solving localized issues (n.p.). Rather than striving for leadership based on control, community governance focuses on distributing power (Hutchinson, 1999: 5). Increased consensual planning is one of the many opportunities that community governance presents within policymaking that traditional governing cannot provide. Given its inclusive nature, community governance allows for a more comprehensive approach. By focusing on action from a bottom-up perspective, policymakers have increased contextual information on the issues being addressed. There is an implication with community governance that Totikidis et al. (2005) define as “the broader aims of addressing community needs and

building community capacity and well-being" (n.p.). With this, decision-makers can observe and acknowledge informal and formal interrelationships (Totikidis et al., 2005: n.p.).

A community governance approach allows for a robust platform for marginalized groups who historically have been ostracized from self-governing. While community governance cannot solve tensions between different demographics, it can create opportunities for inclusivity within governance. For instance, the term 'Indigenous community governance' has been used to propose self-determination of social and economic factors that affect Indigenous lives and values. Hunt (2008) explains that this type of community governance allows for meaningful conversation between the government and Indigenous peoples that can make local and national changes (44). In their words, Indigenous community governance is an alternative approach with the aim "to adopt a more reflexive and adaptive approach to governance, which appreciates the significance of political history, pays attention to power, knowledge and different 'framings' of problems, and leaves open a range of pathways for Indigenous people" (Hunt, 2008: 44).

Scholars have additionally identified the long-term benefits of community governance. Notably, it can enhance connectivity, trust, and engagement. Community members actively participating toward a common goal is advantageous in numerous ways. As Taylor (2019) states, permitting actors to be a part of the governing decision-making process allows for participatory governance to strengthen, which enhances "agency and local control" (20). A shift in authority can strengthen valuable community assets - notably solutions to community problems through empowerment (Totikidis et al., 2005: 12). Civic engagement can enhance trust between all participants (Walker et al., 2010: 2637). These attributes are vital long-term resources for the community- "[w]orking as and for the community through civic engagement can enhance trust between people and organizations, an outcome which both builds local capacity for future and

further collective action" (Walker et al., 2010: 2657). Governance that diversifies authority and focuses on lower-level powers also possess increased resistance to system shocks, which can help a community's sustainability (Taylor, 2019: 20).

The pinnacle of community governance allows for a jurisdiction to look into itself for policy direction. In this sense, I concur that community issues can be solved through community insight and leadership. Community representation depicts the democratic process in its authentic form, in which the people have the authority to represent and participate. Looking inwards to address governing issues allows for a new perspective that breaks the mold of the traditional framework that actively restricts such involvement.

2.3.2 Community Autonomy or Degeneration?

Community governance may appear to be the ideal answer to local issues, however, many scholars point out the romanticization of the concept of community. Taylor (2019) best summarizes prevailing reservations by stating, "[s]imply because community governance exists does not mean it is participative, equitable, or just" (19). The controversy surrounding community governance questions (1) the limitations of operationalization and (2) the possibility of inter-relational conflicts.

While community governance is an effective step towards localized authority and autonomy, practical limitations exist. Keskitalo and Kulyasova (2009) highlight the liabilities of community governance, specifically surrounding resource constraints. They discuss how a shift in governance can lead to depleted resources - "[a]daptation at the local level may therefore be limited by national and international regulations that determine, among other things, the legal rights to resources, levels of resource out-take, and support or compensation mechanisms" (Keskitalo and Kulyasova, 2009: 60). Concurrently, there is no guarantee that a community is

adept at handling the responsibilities of self-governance. Murdoch and Abram (1998) warn that communities will be forced to utilize state mechanisms as "safety nets," which is counterproductive to the idea of community governance and independence (42).

With this, I question whether government oversight would still be needed once community governance is implemented - if so, how much? Taylor (2019) builds on this by discussing how limited resource access and increased authority can lead to other unsustainable outcomes. As he states, "[w]e then create a situation in which we task resource-constrained communities with enormous duties beyond their capabilities, previously performed in an aggregated manner by well-resourced state actors'" (Taylor, 2019: 21). Returning to the discussion of community governance in Victoria, O'Toole & Burdess (2004) have similar apprehensions. Following their study, they express that while communities' act of taking on such duties says much about their character, their lack of legitimacy forces them to rely on funding that transforms communal issues into "fund-raisers and lose sight of the more strategic issues involved" (O'Toole & Burdess, 2004: 442). While the initial stages of community governance may appear promising, it is critical to consider its longevity and how dependency could alter over time.

I have found that concerns of inter-relational conflicts within the alternative governance system are repeatedly raised in academic literature. Wüstenhagen et al. (2007), for instance, question the validity of supporters' social acceptance within community governance. Looking at renewable energy, they argue that there is a difference between general acceptance and personal responsibility (2685). "This is the arena where the debate around NIMBYism ["not-in-my-backyard"] unfolds, where some argue that the difference between general acceptance and then resistance to specific projects can be explained by the fact that people support renewable energy

as long as it is not in their own backyard" (Wüestenhagen et al., 2007: 2685). Even if initial acceptance by all actors is successful, controversy can arise through distribution concerns. Looking again at renewable energy within community governance in Australia, Walker & Devine-Wright's (2008) research suggests similar obstacles. Much like most development proposals, it is necessary for community projects to consider equity and distribution to avoid localized debates - "renewable energy projects can become more locally divisive and controversial if benefits are not generally shared among local people" (Walker & Devine-Wright, 2008: 499). The adoption of community governance is a fragile process that requires deliberate progress or else it may not withstand exterior pressures.

While the idea of community governance is undoubtedly admirable, creating a successful governing framework goes beyond its simple existence. The limitations of operationalization and the possibility of inter-relational conflicts are two prominent issues that must be considered before implementing community governance. These concerns question the practicality of community governance, specifically, the limitation of scale with implementation and the need for increased strategic policy making.

2.4: Extension of the Typology: Community Renewable Energy

The purpose of this thesis is to examine the opportunities and challenges of community governance addressing wind energy. Community governance is an approach to governing, but what can it govern? Community governance can be implemented in various sectors, such as healthcare, education, and law enforcement. As indicated, I am utilizing community governance in the scope of energy policy. Bednar and Henstra (2018) illustrate vital aspects of community governance within their typology. While their work is fundamental, the difficulty lies with the ability for the framework to be fully established in a practical setting. As Frances et al. (1991)

point out, governing modes, like community governance, "do not attempt to explain everything in one grand intellectual sweep" (6; Bednar & Henstra: 148). Considering this and the presented limitations, I emphasize the need of understanding the scale at which community governance can be successfully implemented. Community governance allows for different perspectives on fundamental issues and provides feasible approaches and strategies. With this, this section will present community renewable energy (RE) as an extension of community governance. Community RE follows the same tenets as community governance but is explicitly implemented for energy policy projects.

Like community governance, community RE introduces policy opportunities. Within the context of energy policy, it creates a unique socio-economic framework in which local and collective energy production and supply are adopted rather than the traditional centralized system (Šahović & Da Silva, 2016: 47). Through community RE, renewable energy infrastructure is established and developed by localized actors and communities (Walker et al., 2010: 2656). *Figure 2.4* illustrates the process of community RE projects and their desired outcomes. Viewpoint A illustrates the community project process needing a high degree of local involvement, viewpoint B illustrates the project's outcome, highlighting the equal distribution of benefits, and viewpoint C illustrates the community label of a project (Walker and Devine-Wright, 2008: 498-499).

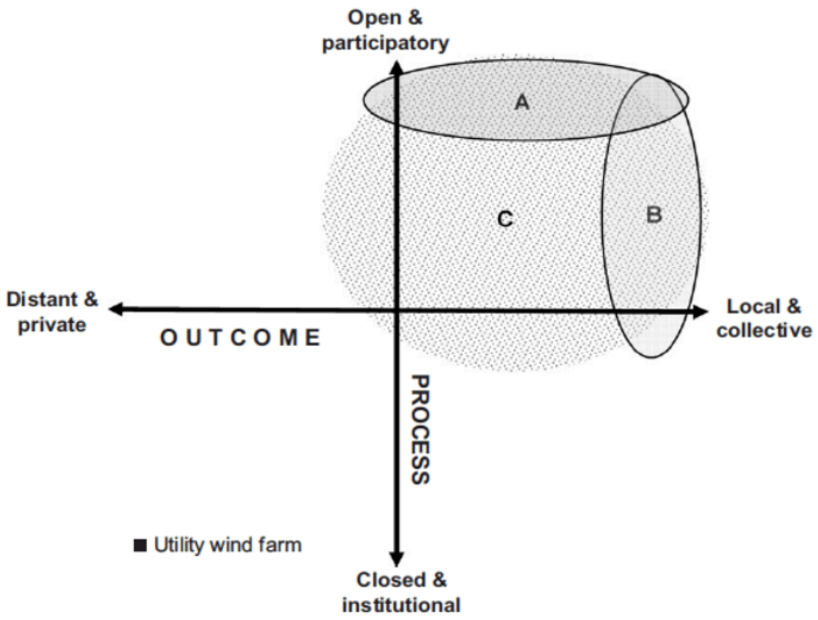

Figure 2.4: Desired outcomes of community RE, Walker and Devine-Wright, 2008: 498.

Figure 2.4 ultimately presents the general procedure of a community energy framework. It collectively illustrates the key characteristics of community energy. These attributes make community RE projects different from any other type of renewable energy project (Walker and Devine-Wright, 2008: 497). Returning to Bednar and Henstra's (2018) characterization of community governance, it is evident that community RE takes innate qualities and practically implements them in a specific way that honours the theory of its origins.

Community RE projects can be seen in many locales. The framework has been utilized across Europe to increase energy security and local revenue and investment (Leonhardt et al., 2022: 1). Northern Canadian Territories have also implemented community energy in regions where off-the-grid Indigenous communities use alternative energy sources to combat energy poverty (Leonhardt et al., 2022: 1-2). Community RE has many benefits derived from the principles of community governance - "from capacity building and community resilience to

shaping community social and economic opportunities" (Leonhardt et al., 2022: 1). With this, community RE allows for the attributes of community governance to be strategically and distinctively implemented.

Community RE offers an alternative to traditional frameworks and a practical implementation of community governance. Feasibility needs to be prioritized to effectively implement community RE in compliance with practical policymaking. To do so, attention should be given to formulating a policy strategy that considers the uniqueness of the situation at hand. For wind energy policy and implementation, this would imply a thorough examination of how wind energy is perceived and understood on various levels.

In his speech to the Community Governance Forum in New Zealand, Hutchinson (1999) explains that "[c]ommunity-building is the soul work of governance. It is about creating support and connection amidst a local and global landscape which is increasingly insecure and fragmented" (1). I argue that community governance is the most life-giving form of governance as its aspects are inherently regenerative and sustainable. While community governance is highly contested, it is critical to note that the idea of increasing community participation within governance is generally accepted. It is the level of authority and feasibility that those in opposition challenge. With this, the integration of governance by Bednar and Henstra's (2018) typology creates an essential reminder that wind energy implementation through community energy is possible in multiple ways. While the typology can be related to various provincial circumstances, it also allows us to question whether renewable energy policy can be transferred to another form of governance. As Bednar and Henstra (2018) indicate, governance does not have to be a closed system; different aspects of each can be applied to specific settings (149).

The call for community governance does not necessarily mean eradicating all current forms of governance but rather a shift to better support wind energy's sustainability. The idea of bridging forms of governance will be a key aspect in the following chapters.

This chapter initiates a response as to what the opportunities for community governance in Alberta are. I have theorized from Bednar and Henstra's (2018) typology that community governance presents a challenge to traditional forms of governance as an alternative solution to renewable energy policy. Furthermore, I have extended the typology to introduce the community RE, an approach with increased practicality. Through its alternate qualities, community governance and strategic environmental policymaking can address the governance and ideological challenges that are constraining renewable energy in Alberta. The following chapters will examine these obstacles alongside community governance and, by extension, community RE.

Chapter 3: The Challenge of Governance

Any national effort to reduce greenhouse gas releases thus has the potential for significant regional variations in costs - and provincial governments can be counted on to step in as powerful defenders of "their" industries' interests.

Kathleen Harrison (2010: 175)

The Canadian federal government recognizes the importance of renewable energy to achieve a net-zero emissions future. Various programs, initiatives, and legislative acts have been introduced in recent years to help reach these targets with renewable energy at the forefront. However, reception varies in each region. Each jurisdiction has a unique strategy for climate change mitigation and the adoption of renewable energy, which poses governance challenges. This chapter will showcase governance as the first obstacle for the transition towards wind energy in Alberta. First, I will present the provincial and federal government structure for policy context. I will explore the Government of Canada's approach to climate change with renewable energy, specifically the policies that promote progress and the limitations of the federal framework. The chapter will then review what the province of Alberta has done with its agency over its natural resources and approach towards climate change. I will conduct a comparative provincial adaptation policy analysis to portray Alberta's past attempts at climate mitigation and the province's current position. The analysis aims to illustrate provincial renewable energy policies and to analyze what initiatives the provincial government has been taking with renewable energy. With this, I aim to depict the issues surrounding Alberta's distribution of authority, the province's position with policy implementation, and the possibilities of change.

Alberta prioritizes economic gain over environmental sustainability, which is exemplified through Alberta's dependency on fossil fuels. The mode of governance surrounding the oil and gas industry presents a constraint on alternative energy production. This section will explore why

fossil fuel dependency is an obstacle for wind energy implementation, how it exemplifies governance as a challenge, and how community RE and strategic environmental policymaking could approach this issue. Lastly, the chapter will examine recent policies and conduct a comparative policy analysis. Former Premier Rachel Notley's government policies from 2015 to 2019 illustrate aspects of community governance depending on its scale. With this, I will discuss the Climate Leadership Plan (CLP) and the Renewable Energy Program (REP) to explore the policies alongside community governance and its scale. The current governing structure has cultivated a dynamic barrier to wind energy implementation. I answer this problem with community RE as a potential solution through strategic planning. The purpose of this chapter is to demonstrate governance as a significant obstacle and argue community governance mitigation ability through strategic environmental policymaking.

3.1 Strained Jurisdiction: Federal Environmental Policies

For decades the Government of Canada has vowed to do its part to mitigate climate change and has pledged to reduce GHG emissions on the international stage. This has been exemplified by the ratification of the Earth Summit in 1992 and the Kyoto Protocol in 2002. Despite these projects failing, the federal government continues to advocate for reductions. In 2015, the Paris Agreement COP21 was signed, committing Canada to reach net-zero emissions by 2050 (Environment and Climate Change Canada, 2022a). Countries adopted the international agreement within the United Nations Framework Convention on Climate Change (UNFCCC) to keep the global average temperature below 2 degrees Celsius, enhance the ability to adapt to climate change, and financially support low greenhouse gas emissions and development (Environment and Climate Change Canada, 2022a). In 2021, the Canadian federal government

announced the goal of reducing carbon dioxide emissions by 30% by 2030 (International Energy Agency, 2022: 31). The government further solidified this commitment with the Canadian Net-Zero Emissions Accountability Act - legally binding Canada to reduce emissions 40-45 percent below 2005 levels by 2030 (Environmental and Natural Resources Canada 2022).

The federal government has been increasing its support for renewable energy transition over the years. *Figure 3.1* illustrates progress by showcasing Canada's commitment to alternative energy types from 2020 in response to COVID-19.

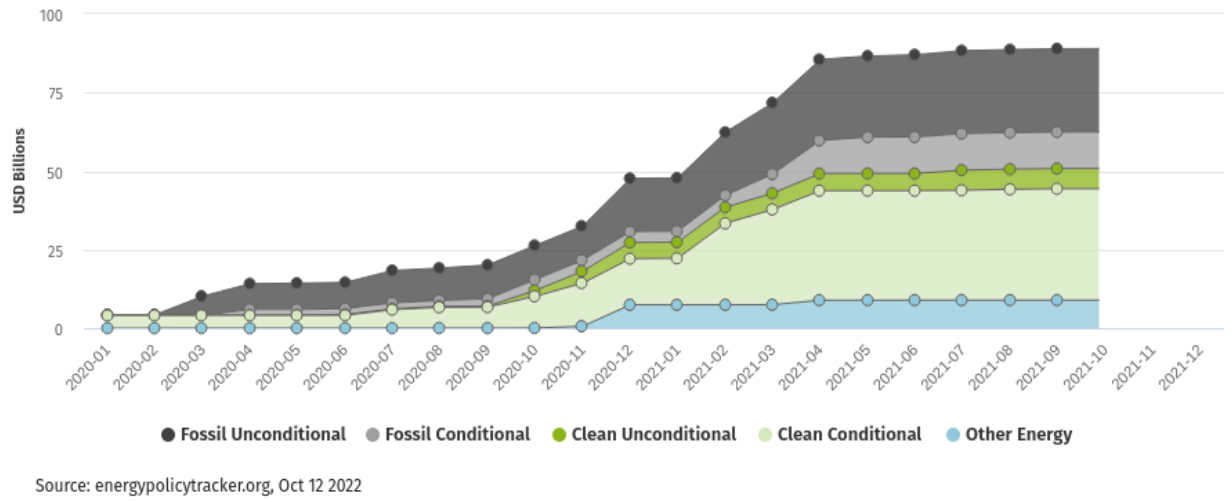

Figure 3.1: Public finances committed to varying energy in Canada 2020-2021, International Institute for Sustainable Development.

Figure 3.1 presents an increase in all forms of energy and solid progress for "clean unconditional energy" (International Institute for Sustainable Development, n.d.). This refers to policies that "support production or consumption of energy that is both low-carbon and has negligible impacts on the environment if implemented with appropriate safeguards" and supports natural energy sources, such as solar and wind (International Institute for Sustainable Development, n.d.).

Despite the national interest, collaborating with various government departments and provincial governments to influence policy change is limiting. This is due to renewable energy laws and policies being legislated on the provincial and territorial levels. Implemented by the Canadian Constitution, energy is divided "geographically and functionally" (International Energy Agency, 2022: 30).

While the federal government does push for climate action through legislation and recognizes the threat of GHG emissions, there is a limit to its authority on a provincial level. Provinces and territories hold jurisdiction and energy administration over their natural resources, which becomes an issue when the federal government tries to make a national transition, such as lowering GHG levels. The country's most significant contributor to GHG emissions is CO2 and, consequently, most CO2 comes from fossil fuels categorized as a natural resource (Environment and Climate Change Canada, 2022b). While the federal government makes legislative promises for climate mitigation, under law it cannot actively address the most significant threat if provinces refuse to cooperate. This begs the question of how much practical power the Canadian Government possesses within this capacity.

The federal government makes policy efforts within its capabilities. Federal renewable energy initiatives through Natural Resources Canada (NRCan) encourage the development and utilization of renewable energy through funding opportunities, grants, policies, and programs. The department additionally manages portfolios of federal funding initiatives (International Energy Agency, 2022: 28). Support programs, such as the Smart Renewables and Electrification Pathways Program and the Emerging Renewable Power Program, have been issued by NRCan. Smart Renewables and Electrification Pathways Program was announced in 2021 to provide $964 million for "smart renewable energy and electrical grid modernization projects"

(International Energy Agency, 2022: 33). The Program aims to reduce greenhouse gas emissions by replacing fossil fuel electricity with renewable while still providing optimal services (Natural Resources Canada, 2022). Similarly, the Energy Renewable Power Program supports renewable sources through funding (International Energy Agency, 2022). Announced in 2018, the Energy Renewable Power Program helps to expand the portfolio of commercial projects by mitigating the risks associated with renewable energy (Natural Resources Canada, 2022).

Recent federal support of renewable energy to reduce greenhouse gas emissions is encouraged through policy incentives. Notably, in 2021 the government provided tax incentives for promotion, such as a "50% reduction in the general corporate and small business income tax rates for businesses that manufacture zero-emission technologies, including wind turbines" (International Energy Agency, 2022: 125). Provincial governments cannot be directly demanded to accept renewable energy. The federal government can only encourage action.

Energy efficiency policies and incentives on the federal level are regulated by the Energy Efficiency Act, which prioritizes the progress of clean energy through innovation through competition (International Energy Agency, 2022: 48). The Act encourages the federal government to "work with stakeholders to develop model building codes, which can then be adopted and enforced by provinces" (International Energy Agency, 2022: 34). The Energy Efficiency Act is purely suggestive. Each province and territory develop regulations and policies to support renewable energy within their jurisdiction, which has led to significant variation. While the Canadian government has supported renewable energy transitions on an international and federal level, their level of authority is constrained by the country's governance model.

To summarize, the federal programs for renewable energy are essential for international climate mitigation and prompt action within provinces and territories. However, given the

divergence of authority over natural resources, federal policies are not as sufficient as provincial policies. From this perspective, top-down frameworks - such as those exhibited with Canada's ratification of international treaties - are at risk of becoming unsupported by lower-level actors.

3.2 The Outcome of Total Agency: Provincial Environmental Policies

Alberta's position in the transition to renewable energy demonstrates the national diversity of policies. Wind energy progression, in particular, has been slow compared to other energy resources over the past decade, as demonstrated by the data retrieved from the Alberta Utilities Commission (AUC) in *Figure 3.2* (Alberta Utilities Commission, 2022).

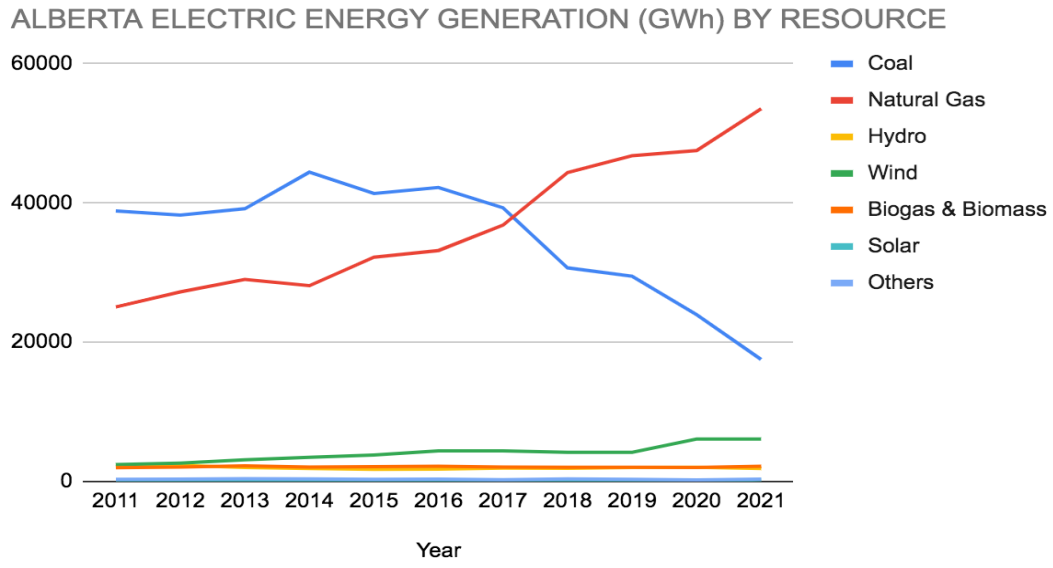

Figure 3.2: Annual electric energy generation in Alberta, Alberta Utilities Commission, 2022.

Renewable energy progression has been minimal compared to coal and natural gas. Nonetheless, several regulations have been put in place that have been a consistent part of renewable energy implementation in Alberta. Multiple provincial agencies work together to implement renewable

energy projects. *Figure 3.3* illustrates the general process of proposal approval under Alberta's Renewable Energy Act (Government of Alberta, 2020a).

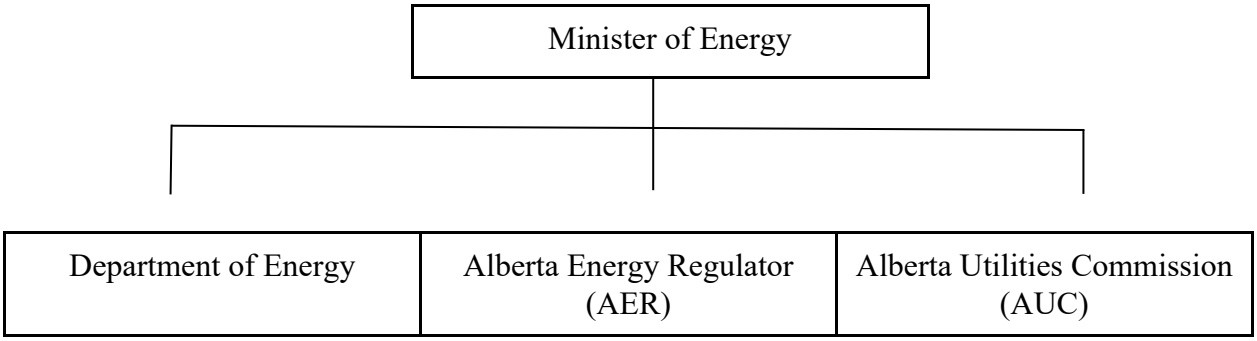

Figure 3.3: Organizational structure of Alberta's proposal approval, Government of Alberta, 2020a.

The Alberta Utilities Commission (AUC) holds the provincial agency over every energy approval and municipal decision under the Municipal Government Act (Miistakis Institute, 2017; Farmers' Advocate Office, 2017: 18). Ultimately, their role is to ensure "that the delivery of Alberta's utility services takes place in a manner that is fair, responsible, and in the public interest" (Government of Alberta, 2020a: 13). A developer must abide by the AUC's regulations and require approval from the AUC (Miistakis Institute, 2017). The AUC follows a case-by-case process which includes nine steps; (1) planning and consultation by developer; (2) developer applies; (3) AUC issues notice; (4) opportunity to become a participant; (5) ongoing consultations and negotiations; (6) public hearing; (7) AUC decision; (8) decision appeal; (9) construction and operation of the project (Farmers' Advocate Office, 2017: 14). Once a project is approved and developed, the Alberta Energy Regulator (AER) observes its lifecycle - "the AER keeps energy companies in check as they develop resources across the province" (Alberta Energy Regulator, 2022). The provincial government authorizes the AER to monitor companies

to ensure they are developing resources in an environmentally responsible manner (Alberta Energy Regulator, 2022). While the AER oversees applications, inspections, hearings, and enforcement of oil and gas projects, their role is essential to understand energy project implementation. There are additional departments that are involved with the development of renewable energy projects. This primarily includes the Alberta Electricity Systems Operator (AESO), which individually assesses each request by renewable energy applicants and develops proposals, and the Alberta Environment and Parks (AEP), which enforces that the developer showcases mitigations on wildlife during and after construction (Miistakis Institute, 2017). It is additionally required for the Environmental Impact Assessment (EIA) to examine the environmental effects of a proposed project (Government of Alberta, 2023b).

3.2.1: Comparative Provincial Adaptation Policy Analysis

Unlike most energy regulations through multiple agencies, renewable energy policies orchestrated by Alberta's provincial government have not been consistent throughout the years. There have been legislative promises. In 2020, for instance, the Renewable Electricity Act was updated to develop, implement, and fund programs that would help Alberta to have at least 30% of electric energy produced in Alberta be renewable by 2030 (Hastings-Simon et al., 2022: 1). While this can be promising, an overview of how the province has embraced renewable energy through policies needs to be explored to understand its future in Alberta. This section will analyze the timeline of energy policies in Alberta between 2010 to 2022 from Alberta Energy (Government of Alberta, 2023a). *Figure 3.4* illustrates this overview by exploring the number of prominent renewable energy initiatives implemented over this period.

Year	Renewable Energy Policy Initiatives	Updated Results	Analysis
2010-2011	- AUC directed to collect information on initiatives to "enhance conservation, development of green energy sources and the regulatory process" (Government of Alberta Information Bulletin, 2010: 30). - Alberta implements a Renewable Fuels Standard, with an annual average of 2% renewable diesel in diesel fuel and 5% renewable alcohol in gasoline sold.	The Renewable Fuel Standard is ongoing and expects "renewable fuels to demonstrate at least 25% fewer GHG emissions than the equivalent petroleum fuel" (Environment and Climate Change Canada, 2022c). Standard is an example of clean fuel standards in Canada and viewed as an aid to reach the 2050 emissions target (Environment and Climate Change Canada, 2022c).	Though not specifically implementing renewable energy policies, the government of Alberta implemented research strategies to understand and then incentivize renewable energy.
2012-2013	- The *Responsible Energy Development Act* (REDA) is passed. - Alberta and China sign the Framework Agreement on Sustainable Energy Development.	After the Act was proclaimed, the Alberta Energy Regulator (AER) was mandated to be the "single regular for upstream oil, gas, oil sands and coal projects in Alberta" (Alberta Government, 2021).	Similar to previous years, though not specifically implementing renewable energy policies, the government of Alberta was striving to regulate energy sources in an environmentally conscious manner during this time. Steps were being made towards alternative opportunities.
2014-2015	- The Energy Potential and Metrics Study – Alberta Context report was created to explain energy and its environmental impact. - Royalty Review Panel announces climate change strategy.	The Climate Leadership Plan was terminated in 2019 quickly after the United Conservative Party (UCP) came into power. The termination	Facilitated opportunities for renewable energy implementation, specifically wind. Support programs

Year	Renewable Energy Policy Initiatives	Updated Results	Analysis
	- The Climate Leadership Plan sets a goal to transition from coal and have 30% of the electricity grid supplied by renewable energy by 2030. - Climate Leadership Plan invests over $5 million to help municipalities and farmers transition to solar power. - The minister of Environment and Parks implements the Energy Efficiency Advisory Panel. - Government announces a target of 30% of electricity will come from renewable sources by 2030. - The Climate Leadership Plan announces multiple programs: Indigenous renewal pilot program, funding for Emissions Reduction Alberta, funding for solar panels at new schools, Energy Efficiency Alberta programs, efficiency grants for farmers, transitional support for bioenergy producers. - The micro-generation regulation is changed to allow for more green electricity.	was announced without a replacement plan (Bratt, 2020: 19).	were put into place to create a strong foundation for this transition.
2016-2017	- The Renewable Electricity Program (REP) was launched. Expected to attract at least $10.5 billion of investment into Alberta's economy by 2030 and create more than 7, 200 jobs for Albertans. - Alberta Utilities Commission (AUC) conducts a study of greener community power generation. - The Renewable Electricity Program begins the request for proposals stage. Three companies are chosen in the opening round. About $1 billion of private-sector investment is for green power generation in Alberta. Record was set for the lowest renewable electricity pricing in Canada.	In 2019, the AESO was advised that the Government of Alberta would not be continuing with the REP and to stop further competitions (AESO, 2016a).	Facilitated economic opportunities for wind energy projects.
2018-2019	- The Renewable Electricity Program competition opens for the second and	REP ended in 2019, but AESO was advised to	Facilitation of wind projects

Year	Renewable Energy Policy Initiatives	Updated Results	Analysis
	third rounds. - The AER releases methane reduction draft directives.	continue relations with the Department of Energy to "ensure market-driven renewable power" (Alberta Utilities Commission, 2019: 162).	through economic incentives was continued.
2020-2022	- The Technology innovation and Emissions Reduction Program (TIER) came into effect. - Preliminary agreement with the federal government signed for methane emission reduction. - Premier Kenney issued a statement on the federal government's energy stimulus package to address inactive wells, following Alberta's commitment to ensuring our resources are developed in an environmentally sustainable fashion (Government of Alberta, 2020b). - The first progress report on methane emissions reduction indicates the reduction goal will be reached by 2025. Emissions from the oil and gas sector decreased by about 34% between 2014 and 2020. - Alberta Innovates invests $13 million to support 22 projects. Thirteen projects are receiving funding through the Digital Innovation in Clean Energy (DICE) program and nine through the Clean Resources business unit.	The TIER program is ongoing and funding various projects to meet net-zero goals (Government of Alberta, 2023c).	Constrains renewable energy alternatives, such as wind. Because policy efforts are focusing on making fossil fuels more sustainable throughout nationwide efforts to reach net-zero emissions.

Figure 3.4: Overview of prominent renewable energy policies and initiatives in Alberta from 2010-2022, Government of Alberta, 2023a.

Figure 3.4 offers an outlook on renewable energy policies and initiatives. This form of climate adaptation policy intends to minimize the vulnerability risk and strengthen the adaptive capacity surrounding the risks of climate change (Vogel & Henstra, 2015: 111). Governments have accepted the challenge of responding to climate change but have approached the issue in

various ways. This section will rely on Vogel and Henstra's (2015) research for comparative provincial policy analysis and climate adaptation to analyze the government of Alberta's approach to renewable energy. I will use a deductive method as it can apply comprehensive concepts and proposals to *Figure 3.4* (Vogel & Henstra, 2015: 111). With this, I will compare policy goals, targets, instruments, and agents. These are universally shared elements of all public policies (Vogel & Henstra, 2015: 111). I will analyze these elements through three categories; pre-Notley (2014-2015), Notley's government years in office (2015-2019), and post-Notley (2019-2022). This approach will illustrate an evolutionary narrative, a unique outlier, and subsequent regression of climate change action within different political circumstances in Alberta.

First, Vogel and Henstra (2015) refer to *policy goals* for adaptation policy as "objects chosen by local governments to address climate change" and what the governments want their policies to achieve (112). Climate adaptation policies vary with intentions depending on the locale and political context. *Figure 3.4* identifies diversity when analyzing the difference between the goals during Notley's and Kenney's governments. While both governments were tasked with lowering GHG emissions, what they wanted their policies to achieve varied considerably from what they prioritized. Notley's government aimed to reduce GHG emissions through renewable power. Kenney's government subsequently aimed to create clean energy adaptations for fossil fuels to continue the industry's viability. This difference pertains to the notion that policies depend on political and social environments (Vogel & Henstra, 2015: 112).

Next, Vogel and Henstra (2015) explain *targets* as the actors involved that are "linked to the achievement of policy goals" (112). The scope of the type of target varies depending on the policy intention. *Figure 3.4* showcases how the intended targets have changed throughout the

years. The main characteristic prior to Notley's government between 2010-2015 was the heavy reliance on research. Other than conducted studies, there were few intended targets involved. *Figure 3.4* indicates the wide range of target actors involved with policymaking. The Climate Leadership Program (CLP) and the Renewable Energy Program (REP) exemplify this. As explained in *Figure 3.4,* the policies implemented by the REP were dependent on various actors, such as Indigenous groups, farmers, and municipalities. Similarly, the CLP primarily targeted wind energy companies. We see a significant change post-Notley's government, where progressing oil companies become a primary target for climate policy and mitigation.

Vogel and Henstra (2015) define *policy instruments* as "tools that governments use to achieve policy objectives" (113). Pre-Notley, as renewable energy started to become increasingly provincially recognized, research instruments were predominantly organized by the Alberta Utilities Commission (AUC) to gather information to enhance conservation and reduce GHG emissions. Information-based instruments were significantly utilized to, as Vogel and Henstra (2015) describe, "inform target audiences in hopes of influencing them to pursue adaptive behaviours" (113). Post-Notley's government demonstrates a shift towards policy financial instruments to reach provincial targets. Rather than exploring renewable energy, the provincial government resorted to fossil fuel prioritization efforts to reach net-zero emissions, as illustrated with the TIER program.

Lastly, Vogel and Henstra (2015) refer to *agents* as "the officials and organizations who employ the instruments to implement policy objectives" (113). The role of agents is correlated to the perception of authority - specifically, who implements it. The government of Alberta has generally implemented a bureaucratic and top-down approach to energy policy. This includes international, provincial, and corporate relationships. Notley's government proved to be an

outlier with its approach, as it sought agency through partnerships with lower-level actors, such as non-profit organizations and communities.

Figure 3.4 portrays a powerful narrative of policy action and inaction. It is evident while comparing initiatives that the province holds much more direct policy power than the federal government. Overall, this illustrates the provincial ability to make policy changes. Two distinct points can be made by analyzing Alberta's renewable energy policies between 2010-2022. First, the attention towards climate initiatives and renewable energy begins to strengthen by 2014-2015. This period led to great strides for Alberta and coincided with Notley's leadership. Historically considered a conservative province, the 2015 election remarkably elected the NDP into office and was a fundamental political change that ended a nearly forty-four-year conservative ruling. During her time in leadership, Notley advanced climate change action in Alberta, which was demonstrated by implemented policies and initiatives. The second point is that *Figure 3.4* recognizes climate change mitigation policies post-Notley. While momentum has slowed since NDP leadership, more recent policy initiatives are being introduced compared to before Notley's government. While less rigorous, the NDP has left a legacy of awareness and recognition of changes that must be made. Whether they are adequately addressed, however, is arguable. Progress today is still present, albeit slowed, once Jason Kenney's United Conservative Party (UCP) won the leadership in 2019.

The change in government illustrates how environmental initiatives are determined under different guidance. For instance, in 2020, the UCP created the Technology Innovation and Emissions Reduction (TIER) Fund that came into effect through Bill 19 - the Technology Innovation and Emissions Reduction Implementation Act (Government of Alberta, 2023c). TIER supports programs and projects prioritizing research and technology to reduce emissions at a

lower cost while helping jobs, municipalities, and Indigenous communities (Environment and Climate Change Canada, 2022a). In March of 2022, TIER assigned $12 million to support cleaner energy upgrades for small and medium-scale oil and gas producers (Government of Alberta, 2023c). Different from the previous government's initiatives, efforts through TIER aim to improve the oil and gas industry's sustainability, not support renewable energy alternatives. These policies showcase Alberta's support of the oil and gas industry. With this relationship between the Albertan government and fossil fuels still active despite efforts to address climate change, the provincial government's prominent future support for renewable energy is unclear.

Various actors involved in implementing renewable energy policies and initiatives have been discussed thus far. While this section highlights the policy processes on federal and provincial levels, it also demonstrates the complexities of energy policy. The comparative provincial adaptation policy analysis illustrates how policy outcomes can vary over time within the same region. This analysis depicts how shared elements, such as policy goals, targets, instruments, and agents, can diverge due to different political and social priorities and circumstances. These intricacies are represented through the Canadian and Alberta governments' use of reliance and consultation toward renewable energy policies to fulfill their separate agendas. As mentioned, the federal government relies on collaboration with government departments, agencies, provincial/territorial governments, and non-state actors to implement environmental policies to reach their goals. Though Canada has committed under the Paris Agreement to reach specific targets, there is a limit to the government's practical abilities. Alberta, by comparison, is deeply connected to separate industries that ultimately affect their implementation of renewable energy policies. Heavily oil-dependent provinces align their

environmental policies to suit oil extractive methods. Interconnected reliability supports the oil and gas industry and adapts environmental progress to fit its narrative - as seen with the TIER program. Overall, both governments strongly rely on exterior actors to further their motives. The federal government's reliance is directed towards advancing policies that will help to achieve environmental targets. Alberta's reliance on oil and gas ultimately influences environmental policy progress. While international policies can be advantageous, a top-down method can be problematic when multiple factors affect lower-level implementation.

As Louis Thériault, Vice-President of the Conference Board of Canada, explains, when it comes to solving these energy problems, “it’s hard to find a homogenous, blanket solution” (Parliament, 2017: 16). Each province and territory possess different approaches to addressing climate change. However, as a result, their level of involvement and perspective on renewable energy implementation as a viable solution varies and presents a significant concern for Canada reaching its international climate targets. Compared to other provinces and territories, Alberta is one of the massive perpetrators against the federal government’s climate mitigation efforts. The province is a significant contributor to GHG emissions - tripling the national average of 17.68 tonnes per capita in 2020 (Canada Energy Regulator, 2022). With the Canadian government’s inability to enforce environmental transitions, accountability falls on the government of Alberta’s shoulders to implement specific policies to help climate change relief. The comparative analysis conducted with *Figure 3.4* illustrates that the provincial government is equipped to address climate change through renewable energy. Notley’s government showcases that governance frameworks can alter to produce mitigation policies that share similarities with the tenets of community governance. With this, the ability is not in question when discussing wind energy implementation in Alberta, but rather the obstacles that are in opposition. This section has

explored the restrictions of wind energy within the current federal and provincial government structures and how these issues can be relieved through a change in governance. The following sections will similarly depict obstacles to implementation and how adopting community governance, and consequently, community RE frameworks can leverage barriers into opportunities.

3.3: The Oil Curse on Governance: Fossil Fuel Dependency in Alberta

Alberta has a deeply embedded relationship with the fossil fuel industry. This relationship has been able to persist through specific governance models that prioritize economic incentives. Provincial relations with the industry are long-standing, with their history going back to the early 1900s discovery of conventional oil that initiated a "pattern of economic expansion heavily dependent on a single resource" (Carter, 2020: 22). The conceptual foundation of dependency has petro-capitalistic roots - in which a system is "highly reliant on the energy of fossil fuels, particularly oil" that dominates capital accumulation (Carter, 2020: 11). Petro-capitalist regions are "highly committed to continuing and expanding oil extraction given the economic benefits they garner from the sector" (Carter, 2020: 13). However, the role that oil plays in Alberta expands past market power - it equally holds social and political influence. Harold Innis' Staples' theory explains that "dependence upon a single industry, such as fishing, mining, forestry, or agriculture, has impacts that go beyond the economy to include social and political relations" (Harrison, 2015: 70). Alberta's reliance on fossil fuels showcases the influence a singular resource can possess if the resource has created a prominent culture of support.

Alberta's political economy being carbon-intensive has created significant economic value, notably with municipalities' reliance on oil and gas revenue. The fossil fuel industry has

long-standing ties with rural communities grounded in significant conservative support. These relationships create a significant dichotomy in Alberta between environmentalism and support of the fossil fuel industry. Distinct community sentiments have been cultivated through fossil fuels - "[t]he oil and gas industry is strongly embedded in the living realities of Albertans: being a major employer, it provides infrastructure and contributes to the livelihoods of community members. Therefore, shaping local identities and reinforcing fossil fuel-based social practices" (Vennerman et al., 2022: 8). The fossil fuel industry has created a culture of dependency within Alberta. This unique politicized relationship causes two significant issues that affect wind energy implementation - (1) the province's reliance on the oil and gas industry, and (2) the perception that energy alternatives are unnecessary and threatening.

First, the deeply embedded relationship impacts Alberta's social, economic, and political spheres. This is perhaps most visible in the government's support of the fossil fuel industry. Though Notley's government has proved to be an outlier, there has been a general unwavering support by Canadian prime ministers and Alberta premiers for the fossil fuel industry over the years. Harper notably compared Alberta's oil extraction as being "akin to the building of the pyramids or China's Great Wall, only bigger" (Kuteleva & Leifso, 2020: 3). Former Alberta Premier Alison Redford shared Harper's pro-oil sentiments, claiming that, "Alberta is committed to building our country and cementing Canada's position as a global energy superpower" in 2012 (Kuteleva & Leifso, 2020: 8). While there are a variety of reasons that intense support occurs, it is essential to note the influence of political confinement within petro-provinces. Scholars, such as Harrison (2015), express how fossil fuel support has left the party "a captive of the petroleum industry" with a lack of autonomy (84). This inquiry of genuine self-rule is furthered by the phenomenon of the "resource curse," where resource wealth can be "more of a malediction than

a benediction" (Carter, 2020: 13). While this can enact economic liabilities, Alberta's ultra-dependency on fossil fuels limits energy transition. Alberta's oil curse will continue unless alternative renewable energy policy supports are implemented. Wind energy initiatives can be re-explored through the accomplishments of the Notley government. Fully exploring these tactics illustrates the possibilities that alternative environmental policymaking, such as community RE, can offer to wind energy implementation.

The second issue that fossil fuel dependency elicits is the perceived notion that energy alternatives are unneeded and threatening. Energy extractive industries can symbolize stability, security, and prosperity (Afanasyeva, 2018: 69). Strong community sentiments have been cultivated through fossil fuels on a psychological level. As Harrison (2015) explains, Albertans have become directly and indirectly tied to the industry for their contentment and identity (84). This dependency can be partially attributed to the "Dutch disease" - a phenomenon in which excessive development of one industry simultaneously negates attention towards other sectors (Carter, 2020: 13). This not only deprives other alternative resource opportunities in Alberta but creates a situation where it is difficult to develop (or even fathom) the possibility of pooling resources. With financial safety that continuously supports their way of life, the average working-class Albertan does not show political enthusiasm to change what benefits them, their families, and the community. The significant voting decline in petro-states, for instance, supports such sentiments (Harrison, 2015: 84). In this sense, wind energy can be portrayed as its antithesis, ultimately taking benefits and identity away (Afanasyeva, 2018: 26). Embedded sentiments within rural communities create a lack of trust in transitioning away from fossil fuels.

The development of wind energy infrastructure projects needs the approval of citizens living in its proximity with little opposition. However, a market governance system in a petro-

dominated province is a setting that takes work to overcome. Carter (2020) raises the notion of the "green paradox," in which the introduction of climate policies that move away from oil elicits petro-states to accelerate extraction (13). These responses illustrate the delicate yet reactive situation at hand. This perpetual situation further solidifies the need for conscientious approaches if changes are wanted. This section has explored the impact of excessive fossil fuel dependency on Alberta by examining the province's reliance on the oil and gas industry and the perception that energy alternatives are unnecessary or threatening. The industry's long-standing presence has fabricated a perception of permanency that cannot be relaxed.

3.4: Governance Challenges via Market Governance

Alberta's dependency on the fossil fuel industry has affected many facets of the province. The resource curse can have detrimental consequences if not adequately regulated. To further explore this issue within policy and governance, fossil fuel dependency can be classified as a result of market governance. This section will examine key components of market governance based on Bednar and Henstra's (2018) typology and related to the observed obstacle impeding wind energy implementation.

First, as *Figure 2.1* indicates, the direction of authority for market governance is circular, specifically supply and demand (Bednar & Henstra, 2018: 151). The market is what drives governance - "[c]ompeition and negotiations are determined by the nature of markets, and the extent to which states intervene or are more 'laissez-faire'" (Bednar & Henstra, 2018: 150). Petro-states, like Alberta, are unique in the sense that this neoliberal governance adheres to market ideology rather than democratic ideology (Carter & Zalik, 2016: 60). As previously illustrated, Alberta is a state in which fossil fuel is embedded into the majority of aspects of the province. Because of this, the ability to produce and commodify this resource is strongly

supported. As Covert et al. (2016) explain, "[t]he story seems clear: we should not expect the unfettered market to rapid reductions in the supply of fossil fuels" (116).

Next, Bednar and Henstra (2018) describe the initiating and implementing actors in market governance as government and market actors (151). Market governance results from an interpersonal exchange between market actors (Bednar & Henstra, 2018: 149). In Alberta, fossil fuel companies are actors who are directly involved in provincial governance. As Bednar and Henstra (2018) explain, market governance allows for a behaviour change that is customized to the "invisible hand of the market" (149). In this case, there is a direct link between capitalism and governance that these particular actors have molded. Market-based instruments are evident when examining the reliance on the fossil fuel industry within Alberta governance. Under market governance, policy actors are encouraged to base their decisions on prioritizing the fossil fuel economy. This can create a cycle of power and exclusivity for those in positions of power. Specifically, actors supporting resource wealth stay in power and "reproduce the economic, political, and social status quo" and limit political competition, all while corporate actors invest in this system for their financial gain (Adkin, 2016: 155-156). The maintenance of these power dynamics has been previously explored through energy policy initiatives, such as Alberta's TIER program, where the viability of fossil fuel corporations has still been prioritized amidst the province's "clean energy" transition.

Lastly, Bednar and Henstra (2018) illustrate the dominant policy issues of market governance as supply and demand and government-market intervention (151). Fossil fuel companies are directly involved in provincial policy making. As the Dutch disease demonstrates, when a resource is solely depended upon, others are often undervalued. Bednar and Henstra (2018) similarly explain that the "main limitation of the market mode of governance stems from

the broader failure of market mechanisms to account for negative externalities" (150). After a while, however, the Dutch disease will expand. Rather than negating alternative resources, other government sectors can be overlooked. As Adkin (2016) remarks on conservative governments' actions in the past, "government cutbacks to social services were justified through the promotion of market values" (60). Additionally, corporate intervention engrosses governance and impedes participation from other potential collaborators, such as NGOs or the public sector.

Significant aspects of market governance have been implemented into Alberta's governing practices. From this section, it is evident that the direction of authority, the actors involved, and the policy limitations of market governance can be applied to the very political structure of the province. This setting has permitted fossil fuel dependency to grow and strengthen over time. Alberta has capitalized on a singular resource that has become the hyper-focus of their economy, prioritized in their politics, and praised in their society. By adopting market governance, the province has threatened its resource and policy expansion potential.

3.5: Governance & Community RE

After examining fossil fuel dependency in Alberta as a policy issue for wind implementation, it is clear that the deep-seated relationship with the oil industry has crept into various facets of the province. The consequence is that the economic activity of resource extraction has evolved into a personal relationship that symbolizes stability, safety, and prosperity. Oil culture is persistent, but policy strategies may help decentralize this resource dependency. Bednar and Henstra (2018) associate community governance initiating and implementing actors as "citizens, community groups, [and] neighbourhood associations" (151). By focusing on these participants, they would be in control of the energy resource rather than the corporations and high-level government.

Community energy supports these initiatives by "adopting a community approach was also particularly seen as a way of securing active public consent and support—or as one interviewee put it of doing some work on 'hearts and minds'" (Walker et al., 2010: 2657). In turn, this notion of strengthening local actors' 'hearts and minds' can create positive perceptions and behaviours toward renewable energy projects (Walker and Devine-Wright, 2008: 499). Walker and Devine-Wright's (2008) research suggests that when local involvement is extensively used throughout a project, "a process of recognition of the positive value of renewable energy is at least supported or set in train" (499). The decentralization that community RE advocates can play a critical role in the energy market that heavily relies on fossil fuels (Leonhardt et al., 2022: 1).

While petro-states typically view alternative renewable energy as the antagonist, community RE creates opportunities for personal attachments with renewable energy through localism and collaboration. Specifically looking at wind energy, an interviewee explains sentiments towards community-based project installment;

[W]e are raising a windmill, and symbolically the whole community comes and helps to raise the windmill… it's a bit like American barn raising, and I think that anything that brings a community closer together is a good thing (Walker et al., 2010: 2657; interview with Energy4All).

Changing sentiments would be a challenging task. Nonetheless, we must be mindful that the introduction of community RE can occur in various ways. As Bednar and Henstra (2018) explain, mixing of the types of governance may be needed for adaptation, especially with

community governance (153). Additionally, Šahović and Da Silva (2016) express that community RE projects can be mixed with complete community ownership or by collaborating with private or public sectors to varying degrees (47). Given the fossil fuel industry's power over Alberta, sustainable community RE strategies would be best through thoughtful integration by means of strategic environmental policy making.

3.6: Past Instances of Community Governance in Alberta

The government of Alberta had deviated from the slow progression of renewable energy by utilizing policy initiatives that incorporated tenets of community governance. As Harrison (2015) states, "for the first time in a long while, there is hope. Politics, as the 2015 Alberta election proved, makes a difference—even in a petro-dominated, resource-based economy" (86). *Figure 3.4* provides a brief analysis of provincial renewable energy policies and initiatives. It highlights a prominent divergence throughout Notley's government from 2015 to 2019. This chapter will explore this period in more detail alongside its correlation to community governance and community RE.

First, I will discuss the Climate Leadership Plan (CLP) and the Renewable Electricity Program (REP) - two monumental climate mitigation policy initiatives orchestrated by Notley's government, in which, "[t]he NDP government proved the economic barriers that renewable projects face are surmountable with the right policies" (Patel et al., 2020: 48). I will demonstrate that Alberta's government made alternative policy efforts in the past. Concepts of community RE were present and needed to be considered. With the incorporation of community energy, this chapter will discuss the concept of reform instead of abolition to garner feasibility. Doing so will

not only present past community RE characteristics but also demonstrate the potential for future strategies.

My analysis will initiate a discussion of community governance's ability within contemporary climate and renewable energy policy in Alberta. In 2015, there was a "window of opportunity to introduce a robust climate strategy in Alberta" (Bratt, 2020: 28). Notley's government did not shy away from this chance, as they promised to "rebrand the province's reputation on the international stage to that of a leader in decisive climate action and responsible energy production" (Blue et al., 2018: 98). The CLP and, more notably, the REP were bold policies that represented and actualized these sentiments. In hindsight, however, both the successes and failures of these strategies represent the fragility of renewable energy policies. With this, I will respectively analyze the CLP and the REP to illustrate the feasibility of community RE policy in Alberta, mainly how it can be strategically approached in the future through strategic policy making.

3.6.1: The Climate Leadership Plan

On November 22nd, 2015, the CLP announced its goal of reducing greenhouse gas emissions and diversifying the economy away from fossil fuels (Government of Alberta, 2018). Responsive to Alberta's economy, the Climate Leadership Plan was developed based on the Climate Leadership Advisory Panel's recommendations (Alberta Innovates, 2018). The policy plan issued its four key pillars; (1) capping oil sands emissions at 100 megatons per year; (2) pricing greenhouse gas emissions; (3) stopping coal-fired electrical pollution and developing more renewable energy; and (4) reducing industrial methane emissions by 45 per cent by 2025 (Government of Alberta, 2018). The Plan's objective was to triple the amount of renewable energy electricity generation by 2030 (Ingleson, 2018: 2). This was an ambitious policy initiative

after 44 years of Progressive Conservative reign (Acuña, 2015: 310). As Notley proclaimed, the CLP allowed Alberta to no longer "choose between the environment & the economy" (Notley, 2016). The CLP introduced a variety of partnering stakeholders. Between August and October of 2015, an advisory panel took place that included such groups, as well as environmental organizations, Indigenous communities, fossil fuel corporations, and participating citizens through open houses (Blue et al., 2018: 99). The ability to facilitate cooperation amongst varied interest groups is a recognizable policy achievement that needs to be acknowledged (Pachon & Weber, 2016: 1). When the CLP was unveiled, it garnered much support due to its diversity (Blue et al., 2018: 99). However public support fell short once Albertans understood "the real cost of action on climate change" (Bratt, 2020: 18).

The most significant component of the CLP was the economy-wide carbon tax, which was met with prominent backlash (Bratt, 2020: 18-20). With climate change already a polarizing issue, the CLP promptly became contentious. Growing insecurities were taken advantage of by the Official Opposition, leader of the Wildrose Party Brian Jean, who petitioned that the CLP will disadvantage Albertan families and smaller local fossil fuel companies in opposition to the CLP, unlike large corporations who financially benefited (Bratt, 2020: 18). While there was a lack of public support for the CLP, its intentions were relatively accepted. In each survey conducted by Sayers and Stewart (2019) for the 2008, 2012, and 2015 Alberta elections, a large majority agreed that "Alberta needs to take firm action to combat global warming" (Bratt, 2020: 18). While the CLP was indeed a form of action, apprehensions resorted to a more or less NIMBY mentality, in which Albertans became unresponsive. This was demonstrated by CBC Calgary's 2018 opinion survey, which resulted in 66% of respondents agreeing that Alberta should eliminate the carbon tax (Bratt, 2020: 18).

With significant opposition, the existence of the CLP evolved into a threat to the Albertan *community*. There was a prominent level of transparency with the planning of the CLP, specifically with open house meetings and published local opinions (Pachon & Weber, 2016: 4). The additional presence of large oil and gas corporations were predicted to garner support and illustrate environmental collaboration (Pachon & Weber, 2016: 4). Nevertheless, the backdrop and combination of dependency with fossil fuel and local sentiments runs deep. The provincial top-down approach came across as a target to those demographics rather than an opportunity. The CLP was cancelled by the successive UCP government with only 31% of Albertans in support of carbon tax in 2018, compared to 53% in 2015 (Bratt, 2020: 20 & 28). The outcome of the CLP illustrates the need for strategic policy making when approaching an issue as politically contentious as climate change mitigation.

3.6.2: The Renewable Energy Program

The Climate Leadership Plan launched the Renewable Electricity Program (REP), which called for 5,000 MW of renewable energy to be installed by 2030 (Delphi Group, 2017). The strategy of the REP differed from the CLP's general approach. Designed by the Alberta Electric System Operator (AESO), the REP conducted reverse auctions in three rounds, "which awarded government-backed, two-sided contracts-for-differences which effectively guaranteed project revenues for 20 years" (Hastings-Simon et al., 2022: 1). The REP processed several features that prioritized knowledge and participation throughout its course. The REP highly relied on participation in the province's market. The AESO provided the province with a competitive policy framework for affordable renewable energy by conducting three competitive tenders (AESO, 2016a). The results from this distinct strategy proved effective and produced significant progress for wind energy in the province. The first round was considered a milestone,

successfully delivering 600 MW at a weighted average price of $37/MWh, pricing that set the record of being the lowest in renewable energy (AESO, 2016b). The second round resulted in 363MW delivered with an average bid price of $38.69/MWh, and the final round produced 400 MW with an average of $40.4/MWh (AESO, 2016b). Four wind projects were selected after Round 1, five in Round 2, and three in Round 3 (AESO, 2016a).

The REP was not a perfect policy initiative, but it succeeded in its singularity and legacy. As Hastings-Simon et al. (2022) explain, the REP framework has "demonstrated record of attracting new potential projects into the market, and provides public price discovery for renewable energy sources which, in Alberta's case at least, has spurred development far beyond the projects directly supported by REP" (10). Though terminated in 2019, the REP acquired cost-efficient renewable energy projects in Alberta, which led to an almost 50% increase in installed onshore wind capacity (Hastings-Simon et al., 2022: 10). The program demonstrated how intense competition from local and international investors could attract interest in renewable energy development (AESO, 2016a).

With its termination by Jason Kenney's UCP government in 2019, there is no telling the full impact of the REP. However, contracts from the REP are ongoing, with roughly 14 years remaining, and some projects have not begun (Hastings-Simon & Shaffer, 2021: 1). Project winners, such as Whitla and Castle Rock Ridge 2, are in operation (Hastings-Simon & Shaffer, 2021: 1). Whitla Wind is the largest wind facility in the province, and Castle Rock Ridge wind farms generate wind power for "over 27, 000 Canadian households each year" (Capital Power, 2023; Enel Green Power, 2023). Overall, through its policy tactics, the REP introduced the potential of alternative energy sources through renewables in a seemingly fixed petro-province.

The end of the REP reinforces the need for substantial governing tools to create sustainable and opportunistic climate mitigation policies.

3.7: Hindsight with Community Governance

In retrospect, the CLP and the REP present an opportunity to learn how to approach climate policy in the future. Though the REP was an initiative under the CLP, the public response to both differed drastically and the results are telling. While many other factors were at play, the outcome of these initiatives significantly depended on the different levels of community involvement. To further explore these results, I will analyze the CLP and the REP under the lens of community governance and, specifically, community RE. These governing methods were not explicitly implemented, but characteristics can be recognized and examined. First, Bednar and Henstra's (2018) typology of community governance needs to be restated; (1) the direction of authority is bottom-up, (2) the initiating and implementing actors are citizens, community groups, and neighborhood associations, and (3) the dominant policy instruments are self-regulation and voluntary participation (151).

Despite being orchestrated by the provincial government, the REP created a foundation accessible to lower-level policy actors, in which the results of their actions dictated the outcome of the REP. Smaller business and community involvement were ultimately prioritized. This was particularly evident in Round 3, where Indigenous partnership was designed through an equity participation requirement (Hastings-Simon et al., 2022: 2 & 10). Partnership entailed "a 300 MW procurement reserved for projects with a minimum 25% equity position held by Indigenous communities, and a 400 MW open procurement" (Hastings-Simon et al., 2022: 5). The objective of this was to increase the involvement of Indigenous communities in Alberta's electricity sector (Hastings-Simon et al., 2022: 8). The encouragement and space allotted to local communities and

business participation created the opportunity for the REP to become a communal affair, rather than one orchestrated by elites, stakeholders, and large corporations. In this sense, characteristics of a bottom-up approach were utilized to create a situation of progressive cooperation. Meanwhile, the CLP utilized an increasingly top-down approach that focused on partnering with high-level actors, which consequently suppressed community involvement.

Though the introduction of the CLP advertised a diverse set of collaborating actors, the focus was not on local Albertans. These circumstances can create a situation where renewable energy initiatives become an exclusive topic, and lower-level actors are not participants but rather bystanders. As Bratt (2020) explains, "[t]he CLP process helped to create an elite consensus in Alberta, which helps to explain the CLP's policy resilience, but it also exacerbated polarization at the mass public level" (29). This lack of public authority is precisely what the political opposition capitalized on. By giving the lower-level actors more influence, knowledge-sharing becomes increasingly accessible. On the contrary, the CLP's carbon-tax framework allowed space for misinformation and polarization to flourish. Complimentary to a bottom-up nature, while the government implemented the REP, lower-level actor engagement was prioritized over large corporations. Partnership agreements with corporations were "structured in such a way as to require industry to put up much of the up-front costs for research and feasibility, as well as construction" (Pachon & Weber, 2016: 3). Regardless, partnerships with prominent stakeholders were evident and had an exclusive outcome. The CLP's evident relationship with large actors, such as corporations and stakeholders, appeared as an ostracization of local collaboration.

There were aspects of self-regulation and voluntary participation within the REP. Its framework was intentionally a comprehensible design for those involved, especially the public

(Hastings-Simon et al., 2022: 10). “The REP design featured a relatively simple structure, provided price transparency, attracted a large number of potential projects into the development queue, and had program objectives and attributes that were easy to communicate to the public” (Hastings-Simon et al., 2022: 10). While there were market incentives for small businesses to participate in the bidding, it was reliant on their decision. The public understood the rounds as an opportunity rather than a retribution that the CLP was perceived as by a majority of citizens. In a fossil-fuel-dependent region of Alberta, alternative policy methods must be viewed as beneficial rather than an attack on those affected. As the REP demonstrated, this is where aspects of community RE arise. Both the CLP and the REP made notable contributions to the discussion of renewable energy implementation. However, the REP utilized aspects of community governance that gave the province a glimpse of what a localized approach can accomplish for wind energy acceptance and implementation.

Governance presents a significant challenge to wind energy implementation in Alberta. The established framework has perpetuated a culture of fossil fuel dependency that actively discourages alternate energy sources and villainizes green initiatives that could affect the industry. Because of governing challenges, there has been a reluctance to adopt renewable energy. I have illustrated slow progression with the comparative provincial adaptation policy analysis. Despite this, provincial actions have been made in the past that have featured characteristics of community governance. Notley’s climate adaptation initiatives recall Bednar and Henstra’s (2018) of the different scales that community governance can be implemented. This chapter addresses a portion of my argument of how governance constraints wind energy in Alberta. This has been shown through the policymaking context, provincial policy analysis, and

an exploration of fossil fuel dependency. Additionally, I illustrated a period of mitigation that utilized similar tenets of community governance. With this, this chapter has demonstrated how governance can be addressed through community governance and how it has, on a different scale, in the past. In summary, I argue that while governance presents a significant obstacle for wind energy implementation, strategic environmental policy making can introduce community governance on varying scales to address contention.

Chapter 4: The Challenge of Ideology

The moral versatility of different kinds of anti-environmental counter-movements extends, moreover, to the dynamic relations between them, such as when unprofitable *and* inefficient environmentalism *combine to bolster the capitalistic division between 'the economy' and 'the environment.'*

Nicholas Scott (2022: 46)

The general lack of support of wind energy in Alberta by the government, policymakers, and stakeholders has emphasized discussions of ideology, the obstruction of general acceptance, and escalating scrutiny. I will discuss ideology as the second barrier to wind energy implementation. This chapter will provide context to the anti-environmentalist movement and its complexities. Following this, I argue that the popular anti-environmentalist rhetoric affects local acceptance of energy projects. Anti-environmentalism can be explored through various facets, therefore this chapter will focus on (1) the general disbelief of climate change, (2) restricted knowledge sharing with projects, and (3) vocal anti-climate action organizations as advances of anti-environmentalism in Alberta. Anti-environmentalist factors have practical consequences, such as knowledge immobilization and action, which affects the success of renewable energy project implementation. Similar to fossil fuel dependency, the ideological constraint to wind energy in Alberta needs to be addressed through strategic environmental policymaking. From this, this chapter will explore how community RE could approach the issue of anti-environmentalism.

Based on the lessons learned from Notley's RE initiatives, I will present aspects that need to be discussed for the feasibility of community RE in the context of significant anti-environmentalist sentiments. I will discuss prominent feasibility factors for renewable energy policy, individual assessment, and level of government involvement concerning past Alberta

initiatives. I will showcase how these strategies have been implemented in wind energy and the lessons that can be learned from Notley's initiatives. I will exemplify individual assessment and government intervention as elements that need to be considered while discussing the scale in which community governance can be implemented. This addition argues for methodical integration of community governance to alleviate deeply-rooted and polarizing beliefs. The purpose of this chapter is to present an ideology as an obstacle to wind energy implementation in Alberta. Unlike fossil fuel dependency, it is increasingly difficult to identify the causes for anti-environmentalism. Regardless, I suggest that this constraint needs to be addressed through strategic policymaking. While I present how community RE can respond to anti-environmentalism, it is critical to explore the scale of its implementation. By revisiting Notely's implementation tactics for renewable energy, I contend that regarding these challenges, reform rather than abolition for optimal results of sustainable wind energy implementation and how this can be partly addressed through community governance and strategic environmental policymaking.

4.1: A Case of Ideological Neglect: An Anti-Environmentalist Sentiment

The political development of anti-environmentalism emerged synchronously with the development of post-war environmentalism in the late 1960s and has increased since the 1990s (White et al., 2007: 2-3). As Dauvergne (2016) explains, the term "environment" has become associated with public demand for a better quality of life (1). This is a direct consequence of the 19th and 20th-century rise of industrialization and consumption of natural resources (Dauvergne, 2016: 1). Dauvergne highlights today's diversity of what environmentalism inherently means. As he explains;

> [E]nvironmentalists are not only indigenous people blocking a logging road, Greenpeace activists protesting seal hunt, or green candidates contesting an election; an equal or more significant number of environmentalists are working within Japanese bureaucracy to implement environmental policies within the World Bank to assess the environmental impacts of loans, within Walmart to green its purchasing practices, or within intergovernmental forums to negotiate international environmental agreements (Dauvergne, 2016: 2)

Understanding environmentalism is to comprehend its modern implications and its varieties of practices. Multiple factors, such as lived experience and political affiliation, often influence lower-level forms of environmental actions and sentiments. With this, environmentalism has reached high modern political status. While this movement is diverse, its challenger, anti-environmentalism, also holds diversity within its operations.

The majority of scholars agree on the general definition of anti-environmentalism. Stoddart et al. (2022), for example, relate the common use of the term anti-environmentalism with "conservative or neoliberal political ideologies that emphasize the free market over government regulation with corporate—particularly fossil fuel sector—interests in maintaining profitability in the face of mounting environmental concern" (6). Similarly, Afanasyeva et al. (2022) attribute the definition of anti-environmentalism to Rowell's (1996) explanation of it "actively working against someone who is working for ecological protection" (331). With this, my general summary of anti-environmentalism is that it is a contradictory movement utilized to support opponents' interests that go against the progression of environmental protection.

Scholars have traced anti-environmentalism to ideological origins. Notably, White et al. (2007) compare the critique of environmentalism to Prometheanism, in which Earth is recognized primarily as a utility resource for human needs (2). As Dryzek (1998) explains, "Prometheans have unlimited confidence in the ability of humans and their technologies to overcome any problems - including environmental" (52). Applied to a petrostate, the Promethean argument leads to a dismissal of environmental concerns and advocacy for technological solutions for climate change in support of fossil fuel corporations. As a result, such precedence brings forth a disconnect between accountability and action. Anti-environmentalism has made climate change a contentious topic, whereby supporters perceive any climate mitigation, such as renewable energy implementation, to be a needless endeavor.

Wind energy has become a target of anti-environmentalists in Alberta. Resentment is commonly rooted in right-wing political activities. Harrison (2015) attributes Alberta to a transformed "right-wing corporatist state," in which the province adjusts its priorities to the demands of private corporations (80). This relationship is nothing new - "[p]olitical conservatism and the ideologies associated with conservative governments have historically been tied to anti-regulatory sentiments" (Afanasyeva, 2018: 34). Objections come from a variety of levels, particularly from governments and corporations who benefit from the anti-environmentalist rhetoric. The counter-movement receives extensive support and resources from the elites and allies, mobilized by varied organizations to oppose environmental actions (Staggenborg & Meyer, 2022: 30). In these instances, anti-environmentalism is used as an instrument of active opposition for political and financial gain. From this perspective, there is a clear connection between provincial and corporate actors' incentives to apply a strong anti-environmentalism narrative to further strategically benefit specific agendas.

Despite the evident connections between anti-environmentalism and corporate incentives in Alberta, the ideological challenge towards wind energy is multifaceted. Afanasyeva's (2018) study exemplifies a portion of these complexities. In their collective case study, Afanasyeva (2018) presents candid interviews of landowners and Municipal Government Representatives on the wind energy transition. There is a common theme of people accepting green initiatives but having general reservations about energy transitions. As representative Jared explains, "[h]aving clean energy is never bad. But there is a balance in how far you want to go to trash our economy to do so" (Afanasyeva, 2018: 33). Similarly, Jim, a landowner hosting wind turbines, expresses "I'm not an environmentalist, but I believe in conservation" (Afanasyeva, 2018: 39). It is evident that there are cases where an individual is neither for nor against environmentalism, but rather an undetermined position caused by a variety of factors. Mixed individual sentiments are important to be mindful of as this chapter explores the strategies behind government and corporate incentives.

Local acceptance of energy projects is limited. A common issue for local acceptance of energy projects is the prominent anti-environmentalist rhetoric with practical consequences, such as knowledge immobilization and action. This includes (1) a general disbelief of climate change, (2) restricted knowledge sharing with projects, and (3) vocal anti-climate action organizations. I will explore these instances to argue the importance of recognizing active anti-environmentalist sentiments hindering wind energy implementation.

First, there is a popular rhetoric within Alberta of not believing in climate change which stems from a general provincial lack of knowledge about the concept. This is the most straightforward and candid viewpoint of anti-environmentalism. In Parkins et al.'s (2022) study of large-scale agricultural landowners in Alberta, 62% of respondents agreed with the statement

that “we still do not know for sure whether climate change is real or caused by humans” (35). This general questioning of climate change and environmentalism’s legitimacy leaves room for doubt and distrust toward mitigation policies and projects. Changes that environmental policy brings, therefore, can be perceived by the average citizen as negatively affecting their “community and economic well-being” (Stoddart et al., 2022: 2). Without any familiarity and knowledge of changes, one can justify a pessimistic outlook. The legitimacy of climate change creates a gridlock of inaction and represses coordinative discourse. This consists of actors involved in the development of policy, who are “involved in the creation, elaboration, and justification of policy and programmatic ideas” and “seek to coordinate agreement among themselves on policy ideas” (Schmidt, 2008: 310). Within climate change policy, the idea of coordination through progressive discourse is hindered by the debate of its existence.

Second, projects inherently restrict knowledge sharing due to the system that they function within. This increases anti-environmentalist sentiments such as apprehension and disbelief. While Environmental Impact Assessments (EIA) do have learning criteria within their field, they conduct on a “project-by-project basis, and there is a limited scope of knowledge sharing across these projects” (Dutta, 2018: 53). This can have dire consequences - as Patel et al.’s (2020) survey reports of Alberta landowners in 2019. Despite the respondents having experience with wind turbines, over half the respondents admitted to knowing only ‘a little bit’ or ‘nothing at all’ about wind energy (Patel et al., 2020: 6). This absence of information and unknowing of what wind energy projects will bring once proposed can create “misunderstandings about the impact of wind energy, delayed projects, and in worst-case scenarios, the abandonment of otherwise viable renewable energy projects” (Dutta et al., 2021: 599). It is not solely the absence of strategic knowledge to locals that is damaging, but also the

lack of local knowledge of developers. As Patel et al. (2020) explain, "[r]ural landowners are at 'ground zero' for energy production, and their views on renewable energy development will have major impacts on when, where, and how these technologies are developed in the future" (5). Reservations can reinforce the NIMBYism - where project development is accepted as long as it does not affect the individual (Patel et al., 2020: 45) or extreme anti-environmentalist connotations disregard renewable energy implementation in its entirety.

Lastly, anti-climate action interest groups actively promote false information and anti-environmentalist propaganda against renewable energy. Grassroots Alberta and Friends of Science are prominent organizations that reject scientific evidence of climate change. For instance, Grassroots Alberta refers to the scientific consensus as "climate change alarmism" and attributes global warming as pseudoscience on their official website (Grassroots Alberta, 2022). This spread of misinformation is a pressing concern, especially if the collaborative efforts between organizations and companies aim to reduce climate change regulation for financial gain (Patel et al., 2020: 13). The creation of Friends of Science, for example, was funded by $170,000 from Talisman Energy, a fossil fuel company, to lobby against the ratification of the Kyoto Protocol in 2003 (Patel et al., 2020: 13; Mandel, 2016). Additionally, documentation from the bankrupt coal company, Peabody Energy, establishes Friends of Science as one of their creditors (Patel et al., 2020: 13). Staggenborg and Meyer (2022) attribute these offered resources to the "behind-the-scenes work of the 'merchants of doubt'" for their financial benefit (38). Various anti-climate action interest groups and corporations have economic incentives to oppose climate change mitigation, especially renewable energy transitioning, and do so by spreading misinformation. This behaviour can be increasingly troublesome once it reaches the public, who are solely exposed to the misleading information and not its origins. This leads to an increase in

skepticism towards climate change action within the public that has no merit other than its benefit for the elite with ulterior motives.

Various factors have allowed for the deepening of anti-environmentalism within Alberta. Reservations due to restrained information can reinforce active dismissal of accountability, notably with NIMBY proving to be an increasing issue with the high visibility of wind turbines (Patel et al., 2020: 45). With this, local lived experience and regional-based knowledge need to be actively participating in the decision-making process in order to achieve sustainable results. As Hager and Haddad (2015) explain, "[a]s environmental challenges grow in scope and intensity, scholars, policymakers, and advocates can learn a great deal from the experience of individual communities that are fighting to improve the environment of their own backyards" (211). Collaboration is necessary for sustainable wind projects in contentious regions. Hindrance of knowledge diminishes the chances of partnership and promotes further contention. This section has explored the consequences of anti-environmentalism on Alberta's ability to create successful wind energy projects. I have done this by examining the general disbelief of climate change, restricted knowledge sharing with projects, and vocal anti-climate action organizations. Cumulatively, these factors illustrate the gravity of anti-environmentalism on the prosperity of renewable energy in Alberta.

4.2: Ideology Challenges via Hierarchy Governance

The limited knowledge mobilization has created division among policy makers and citizens. This consequence of ideology in Alberta has produced mistrust and polarization, which has been evident with the lack of support for proposed wind energy projects. To better understand how anti-environmental sentiments can evolve, I will analyze them through the lens of hierarchy governance presented in Bednar and Henstra's (2018) typology.

Bednar and Henstra (2018) categorize hierarchy governance as having a top-down approach to the direction of authority. This type of governance "involves nested levels of state authority, wherein each unit is subordinate to its vertical superior, and in which tasks are divided into more manageable forms," this typically occurs through a chain of command (Bednar & Henstra, 2018: 149). Sabatier (1986) explains that, within governance, the top-down approach's initial focus is a central government decision with specific goals carried out to the private sector (30). Hierarchy governance is an efficient way to achieve desired effects if the primary intended focus is to obtain concise results. The top-down approach's primary focus is to achieve the intended policy results, and this is demonstrated by the structure of how renewable energy projects are approved and implemented. The ranking of positions passed down to complete an energy project in Alberta, where the Minister of Energy holds agency over several sectors for any energy project approval. Meanwhile, each sector possesses regulations that an energy developer must abide by. This process exemplifies a sequence of authority that even exhibits quasi-judicial abilities.

Next, Bednar and Henstra (2018) depict the initiating and implementing actors of hierarchy governance as federal, regional, and local governments. "Primary actors in hierarchical governance are state officials and those with whom the state wishes to consult. The role of state organizations is determined by their place within the hierarchy, wherein authority moves from top to bottom" (Bednar & Henstra, 2018: 149). As previously explained, the federal government does not have authority over provincial natural resources; therefore, the Government of Alberta is the highest in the chain of command for this sector. While the range of authority is indeed on a smaller scale, that does not mean that lower-level actors are adequately represented or acknowledged - "[n]on-state actors may be information providers but are 'passive rule-takers'"

(Bednar & Henstra, 2018: 149). Renewable energy projects can create a power dynamic between those in charge and those expected to accept the projects. “Dominant policy instruments are those typically associated with ‘command and control’” (Bednar & Henstra, 2018: 149). When critical elements, such as knowledge sharing, are limited, this can create friction between the actors involved - straining this chain of command - and ultimately cultivating space for anti-environmentalism.

Finally, Bednar and Henstra (2018) indicate legislation and regulation as dominant policy issues for hierarchy governance. As they explain,

> [H]ierarchical control deals effectively with complex tasks (like adaptation) by sub-dividing them and encouraging the development of expertise. On the other hand, hierarchy is inflexible, has difficulty addressing policy areas, lacks a clear consensus about desired outcomes, and in some cases, can stifle innovation due to a lack of broader societal inputs (Bednar & Henstra, 2018: 149).

Lower-level actors, such as community, are typically bypassed during renewable energy implementation; this, and the need for more knowledge about these projects, create significant opposition. Project legislation and regulation often omit social influences as an essential factor; lower-level strategies must be included. However, this is an integral component of any successful renewable energy project, especially one so easily contested as wind energy in Alberta.

As illustrated, Alberta’s approach to renewable energy implementation exemplifies components of hierarchical governance. Through this lens, the limitations of a top-down

approach perpetuate exclusivity. This can create an overtone of anti-environmentalism, leading to implementation opposition. This inherently restricted governance strategy may be beneficial when dealing with clear-cut policies, but the societal aspects of renewable energy implementation require inclusivity. These policy gaps are what allow opposition to grow.

4.3: Ideology & Community RE

Anti-environmentalism is a multifaceted embedded issue in Alberta. The separation between all actors involved in energy projects has created an environment where trust and communication need improvement. This is a consequence of top-down governing. Bednar and Henstra (2018) characterize community governance as following a bottom-up direction of authority. This suggests that policies should start with lower-level implementation and work upward.

This path relies on cooperation, which lacks interrelationships within provincial RE policymaking. Local action can be successful if interpersonal and social trust is diverse. This notably entails communities working as agents "as both the site of collective and cooperative activity and the recipients of collective benefits" (Walker et al., 2010: 2657). Community is critical here, and community RE gives actors the opportunity for quality collaboration working towards a common goal. The level of anti-environmentalism and subsequent local action is often determined by ulterior circumstances. Hager and Haddad (2015) explore the advantage of understanding and addressing perspectives of opposition. Once well acknowledged and approached, resistance, as seen through NIMBY, can "initiate a process of community learning in which important issues of citizen self-understanding, democratic politics, technical expertise, and issue framing are addressed, resulting in innovative solutions that can serve as models for others" (Hager & Haddad, 2015: 2). The longevity of wind energy policies is heavily determined

by understanding the reasoning behind anti-environmentalist sentiments, rather than meeting opposition with further hostility.

Resistance can be created when RE projects are perceived as alien to community members, ultimately affecting the project's implementation or viability. By working from the ground up as community RE advocates, projects can be installed in a way that is appropriate for the locale. Unlike top-down implementation, RE projects would be "consensual rather than divisive, and with collective benefits to the fore" (Walker et al., 2010: 2657). As Walker et al. (2010) express, this commitment to civic engagement can build trust between citizens and project organizations that will build capacity for future projects and increase trust in RE technology (2657).

Limited knowledge sharing between actors creates a cycle in which anti-environmental information can be absorbed, and knowledge on RE is restricted, allowing for more anti-environmental misinformation. Based on Koirala et al.'s (2018) terminology, the consequence of limited citizen involvement has permitted awareness of RE projects but diminished and even abandoned participation and steering of community-based energy systems (34). This inaction can result from inaccurate information and even a feeling of inadequacy to make a difference (Bomberg & McEwen, 2012: 436). In order to change this cycle of immobility, traditional knowledge and identity need to be challenged (Koirala et al., 2018: 34), and community RE can help this happen. As Walker and Devine-Wright (2008) explain in their study,

> Our surveying of local residents suggested that more direct and substantial involvement of local people in a project also contributes to greater project acceptance and support, and there [is] evidence that this involvement could have a positive impact on local peoples'

understanding of and support for renewable energy more generally (Walker & Devine-Wright, 2008: 499).

Figure 4.1 illustrates the power of authority that citizens can possess. As showcased, the type of involvement increases from awareness to participation to steering.

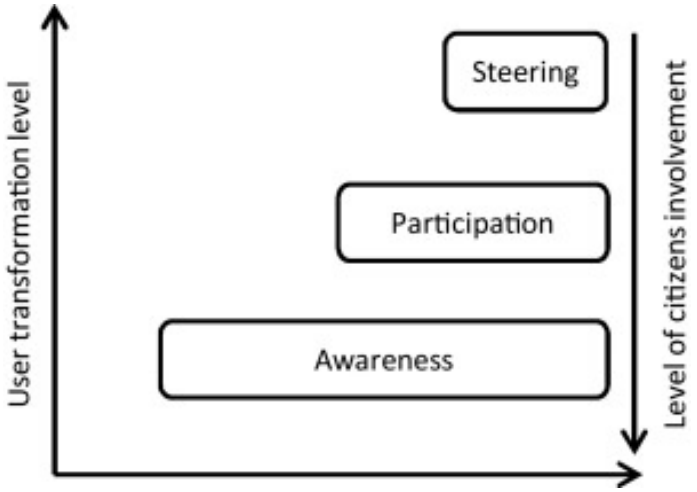

Figure 4.1: Citizen involvement in local energy system, Koirala et al., 2018: 35.

Steering, meaning processing autonomy over local energy systems, "can be achieved through providing [the lower-level actors] with information, choice, and engaging them to provide flexibility to manage demand as well as supply" (Koirala et al., 2018: 34). In Alberta, where RE citizen involvement is restricted through hierarchy, they are limited to solely being aware of projects, rather than being involved or having influence. The evident neglect of the working middle class within climate change mitigation discussion is a cause for concern. As Mavis, an Albertan landowner who is willing to host wind turbines, clarifies,

> I think climate change would be more accepted if they included the stewards of the land... So, the people that are making the decisions for climate change don't live in rural Alberta, don't own land, don't own animals, generally. They may have an understanding of it, but they don't live it" (Afanasyeva, 2018: 44).

Keeping these vital demographics separate causes disconnect and distrust of potential wind projects.

With this, community involvement will expand individual knowledge about RE projects. This will, in turn, allow individuals to assess development proposals independently. Even if individuals still reject specific projects, having self-determination while making decisions through bottom-up policy can help curtail disbelief of climate change and anti-climate sentiments, which would have long-term benefits. There is also inherent value that can be learned from lower-level actors. Local knowledge is essential to developers and policymakers due to their unique perspective of their surroundings. Bomberg and McEwen (2012) illustrate the association between local autonomy and local knowledge;

> When the wind turbines go up, the idea is that the money is spent locally, kept local, very much focused on what local people want to happen. Who knows better than the people who live here what they need? (Bomberg & McEwen, 2012: 442; Interview, community activist, Glasgow, June 2011).

Community energy allows for knowledge to be passed on to locals about renewable energy and encourages a transaction of knowledge between all parties involved. Mobilization of knowledge promotes learning, insight, and collaboration, which advocates for autonomy and sustainability.

As previously explored, the physical aspect alone of wind energy installments can be controversial. While the genuine debate is beneficial and forward-reaching, the polarizing debate is orchestrated by misinformation and controversy through top-down frameworks, which have rendered wind energy policy a closed-off topic where the conversation is lost. Community RE intends to create authentic conversations through knowledge sharing and involvement. This includes producing space to acknowledge both aspects. As indicated, anti-environmentalism within lower-level policy actors and individuals does not simply appear; it is commonly molded by ulterior motives, misinformation, lack of knowledge, and unresolved concerns. Acknowledging the nuance and addressing these sentiments through community RE allows for a greater chance of understanding and cooperation rather than further polarization.

4.4: Strategic Environmental Policy Making for Feasibility

As has been expressed, certain policy factors are "embedded in a network of political relationships which can facilitate - or hinder - action" (Bomberg & McEwen, 2012: 437). In the case of wind energy implementation in Alberta, there is a deeply-rooted ideological issue obstructing RE policy implementation that puts the viability of energy transition into question. Both of these aspects are simultaneously true; a community governance strategy would promote wind energy in Alberta, yet the present ideological issue is embedded within the province, essentially extinguishing alternative propositions. With this, an intuitive approach needs to occur.

This chapter highlights the need for reform rather than abolition for optimal results of sustainable wind energy implementation. Ideally, community RE has the ability to create change, but transition needs to be sustainable among such an ingrained constraint as anti-environmentalism. With this, this section will discuss the scale in which community RE can be implemented. I will utilize individual assessment and government intervention as examples of policy elements that need to be practically assessed to ensure longevity of transition. These factors of consideration will be explored through the context of Notley's RE initiatives to illustrate strategic environment policy making to be conducted with small-scale changes.

4.4.1: Avoiding Simplistic Impressions: Individual Assessment

The notion of unique approaches toward wind energy governance has been previously discussed at various points throughout the paper. This has been done to illustrate the need for case-by-case assessment and justify community energy use. However, even community RE requires individuality and can be at risk of oversimplification if not implemented accurately. Bednar and Henstra (2018) explain how different forms of governance can be combined to reach preferred results. They ultimately call for diversity in scale within policy initiatives.

Likewise, what works for community projects cannot be replicated (Walker et al., 2010: 2662). The primary step needs to be an assessment of the context at hand. In most cases, it should be more of a priority to instill approval and accumulate communal support for renewable energy first than implementing a large-scale energy transition project (Walker et al., 2010: 2663). Given the high level of polarization, this would be needed in Alberta. Approaching wind energy implementation with a strong strategy for community energy would lead to increased tension and risk its practicality. Notley's RE policies provided unique approaches to climate change mitigation. The REP acknowledged the primary issues towards wind energy acceptance, such as

economic incentives towards the fossil fuel industry and neglected demographics, and answered them within the policy plan. The implemented strategy utilized particular tenets of community governance that were appropriate for the policy goal and its obstacles. The use of scale to incorporate new aspects within policy created a unique environmental approach that will again be necessary to approach contemporary wind energy implementation. Knowing its importance, the cultural, economic, and political circumstances would need to be carefully studied by policymakers to implement a justifiable action plan for the region. Community RE investment is needed to transition to low-carbon energy to meet climate targets, but change needs to be intricate and resilient.

4.4.2: Government Intervention: When and Where is it Needed?

The foundation of community governance and community RE is local autonomy, however, the success of implementation may be dependent upon government assistance. Community energy methods, as mentioned, can be enacted in various ways. Notably, Bednar and Henstra (2018) explain how forms of governance are usually implemented differently than their original ideals; instead, they are fitted to the given circumstances. This can include the use of government tools and resources. As illustrated, an active government can constrain renewable energy opportunities if ulterior motives are present; if strategized correctly, it can enable the possibility of community energy (Leonhardt et al., 2022: 2). Appropriate government instruments may include GHG reduction targets, energy regulations, and incentives for renewable investment (Leonhardt et al., 2022: 7). To enable community energy through government intervention, Leonhardt et al. (2022) present four key components (8);

1. Sensitivity to communal factors from the government.

2. Coordination and complementarity are needed throughout all levels of government and stages of implementation.
3. Understanding of what instruments are best for off-grid communities.
4. While community engagement is essential, so is government engagement to properly implement instruments.

Similar steps would have to be made to implement community RE in Alberta. As previously illustrated, using government instruments can be a delicate situation. We have seen the consequences of too much government implementation with the CLP with how limited policy steering was given to citizens. The heavily-regulated provincial policy resulted in further polarization and contention. The CLP illustrates that if government intervention is involved, it needs to be utilized to promote community actors rather than an entity the public adheres to. In comparison, while the REP was regulated by the Alberta government, the initiative encouraged citizen participation and steering that led to progressive collaboration. In order to start promoting wind energy in an area of significant contention, government assistance would be needed to create a solid foundation for the energy transition, but to gain communal support to sustain viability, the presence of the government would have to be intentional and well-calculated to address ideological differences.

Aspects of community governance and community RE have potential, but can they be fully implemented to mitigate wind energy barriers and facilitate a practical outcome? I highlight the idea of reform instead of abolition. Change is needed to implement wind energy policy, but this change should be durable and long-lasting. Sustainable outcomes would be reached through calculated and deliberate development rather than transitioning in one fell swoop. The notion of

reform instead of abolition calls for specific conditions that must be considered. The need for individual assessment and the level of government involvement are two of the many elements that would need to be placed under consideration. These two aspects illustrate the intricacy and importance of the slow integration of community RE. Discussions within this chapter call for strategic environmental policy making that community RE can help provide.

Examining the CLP and the REP represents the practicality of implementing community RE to help mitigate anti-environmentalism and establish wind energy implementation with strategic environmental policy making. While neither of the CLP or REP can be labeled as community RE initiatives, the similarity in characteristics that the REP processed raises an essential question of the feasibility and potential of community RE within wind energy implementation. Providing key elements, such as transparency and participation, allowed for redesigning wind energy policy incentives. This section has illustrated the potential of re-exploring wind energy resources under the Notley government; an alternative is conceivable with uninterrupted and unwavering policy support towards wind energy. Proper acknowledgment of localized issues must occur on a localized policy level to sustainably progress wind projects. Notley's government showcased that strategic environmental policy making can make a difference in even the most stagnant circumstances.

This chapter presents ideology as another critical challenge for wind energy implementation in Alberta. I have illustrated the significant dynamics of anti-environmentalism as an ideology and how that translates into real world consequences. The anti-environmentalism movement within the province has gained much momentum within recent years. Contention and polarization have grown to an extent in which genuine debate is inhibited and a black and white

mentality has been created. With this, anti-environmentalism and the limiting political regulation promotes conflict and threatens progressive communication for wind energy implementation.

I address the intricacies of anti-environmentalism and how it has been growing within Alberta through general disbelief of climate change, restricted knowledge sharing with projects, and vocal anti-climate action organizations all perpetuated by hierarchical policy making. Mirroring the issue with opportunity, I address the ideology challenge with community RE. Specifically, I illustrate how knowledge and trust can be strengthened through local action and steering. I additionally address the scale in which community RE can be implemented. By examining individual assessment and government intervention alongside former Premier Notley's RE initiatives, I contend the importance of strategic Environmental policymaking to ensure methodical steps are put into place for sustainable policy outcomes. The purpose of this chapter was to present ideology as a prominent constraint for wind energy implementation in Alberta and present community RE and strategic environmental policy making as an opportunity to mitigate such issues.

Chapter 5: Discussion & Conclusion

Environmental problem solving is defined by taking the political-economic status quo as given but in need of adjustment to cope with environmental problems, especially via public policy.

J.S Dryzek (1998: 15)

Wind energy symbolizes a puzzle between Alberta and renewable energy acceptance. Though there are benefits of wind energy, resistance is ever-present in the province. As discussed throughout my thesis, opposition can emerge in a variety of ways. However, I have focused on two constraints on wind energy implementation are governance and ideology. These constraints to energy policy implementation have fundamental and deeply-rooted origins. While policy efforts have been made to reduce carbon emissions, the general lack of acceptance of wind energy has created a province in stagnation - unable and unwilling to change amidst the federal and global appeals.

The purpose of this thesis was to understand this puzzle through the exploration of these obstacles, how they are reinforced, and how they can be approached. With this, this discussion will return to the questions that were posed in the introduction;

(I) What helps to explain the resistance to renewable energy in Alberta, specifically wind energy?

(II) What are the opportunities for community governance, especially community energy governance?

5.1: The Resistance to Wind Energy

Despite federal and international pressures, the government of Alberta is not transferring to renewable energy systems. My research indicates that there are governance and ideology

challenges to wind energy implementation. However, additional acknowledgement must be made to the general environmental concerns of wind energy infrastructure. Many perceive wind energy as a cleaner and safer resource option amid climate change mitigation - an environmentally friendly renewable energy source. This is a drastic change from the traditional and long-established oil and gas resource. As Leung and Yang (2012) explain, "[i]n contrast to fossil fuels and nuclear power, wind turbines do not pollute our atmosphere with greenhouse gases, nor do they cause any problems for future generations with radioactive waste. Thus, wind power is considered environmentally benign" (1036). Although wind energy is the favourable option for climate change mitigation, that does not mean there are no environmental consequences that come with the resource.

There is no doubt that wind turbines are clearly visible infrastructures. Regardless of them being cleaner energy alternatives, the mechanics of the turbines alone contribute to the increasing anthropogenic noise caused by urbanization and resource extraction (Teff-Seker et al., 2022: 1). Turbines generate two forms of noise that have significant environmental effects - (1) aerodynamic noises that originate from the turbine blades in motion, and (2) mechanical noises that are created by the turbine's internal components (Dhar et al., 2020: 8). While there are limited studies on the impacts of wind turbine noise (WTN) on wildlife, there is evidence that WTN impacts the natural acoustic environment by "inducing airborne loud broadband sound which is within the hearing range of many animals, including most bird species" (Teff-Seker et al., 2022: 2).

The typical installation setting of wind turbines is in rural regions, away from anthropogenic areas. However, introducing wind infrastructure can harm wildlife and their habitats. Dhar et al. (2020) explain that "[d]uring construction and operation of wind energy

plants, site preparation activities, large machinery, transportation of turbine elements, and feeder lines [...] can lead to the removal of vegetation, disturbance, soil erosion and compactness, and changes in hydrologic features" (8). While construction is a localized and momentary event, it can nonetheless have short-term and long-term effects - "[t]he direct impact is mortality from collisions, while indirect impacts are avoidance, habitat disruption, and displacement" (Dhar et al., 2020: 8-9). With wind energy being regarded as one of the more environmentally sustainable energy sources, these risks question whether any resource extraction is entirely environmentally friendly.

Spice (2018) introduces the concept of invasive infrastructure as having harmful consequences to Indigenous communities and ecosystems. Similarly, LaDuke and Cowen (2020) offer the idea of Wiindigo infrastructure as a disease, in which "[i]nfrastructure is the *how* of settler colonialism, and the settler colony is where the Wiindigo runs free" (245). These scholars attribute oil and gas extraction to these practices. However, it is essential to consider whether these characteristics are inherent in all forms of energy infrastructure, including renewable. Looking at the negative impacts of wind energy implementation, I suggest that all energy infrastructures possess some environmental harm. As Dhar et al. (2020) explain, "[l]ike all forms of energy production, wind turbines impact the environment through their use of land" (9). However, LaDuke and Cowen (2020) illustrate that there is an option to build beyond Wiindigo infrastructure with *alimentary infrastructure,* which is "life-giving in its design, finance, and effects" (245).

A transition towards alimentary infrastructure is possible if deliberate approaches are employed through strategic environmental policymaking. Mitigation strategies can be implemented to reduce the ecological impact of wind turbines. WTN can be scientifically

addressed through acoustic and animal behavioural monitoring (Teff-Seker et al., 2022: 7). Awareness of activities of vulnerable species to reduce environmental disruption and improvements on the structural designs can also be orchestrated (Dhar et al., 2020: 9). While wind energy is far less invasive in comparison to fossil fuel infrastructure, implementation of turbines cannot be perceived as entirely risk-free. However, policymakers can approach wind energy as an alimentary infrastructure calls back to the understanding that capable technology is available; it is a matter of creating robust policies that will aid in its implementation. Climate change mitigation is foremost an issue of implementation.

I have analyzed governance and ideology as specific factors that are deeply ingrained in the political, cultural, and societal facets of the province which impair acknowledgement of other governing alternatives. Both governance and ideology are dynamic issues, therefore, I exemplify these factors through fossil fuel dependency and anti-environmentalism to best showcase the consequential outcomes of such constraints to climate change mitigation. Fossil fuel dependency has been cultivated throughout the years with the excessive development of the resource. The results have created a cultural identity with oil and gas that provides economic benefits and security. This has led to the deprivation of alternative resource opportunities and difficulty to garner support for wind energy - which is significantly perceived as an attack on Albertans livelihoods and way of life. In comparison, anti-environmentalism has grown in popularity in recent years as the topic of climate change has become increasingly politicized. The movement has branched into various belief systems that question the legitimacy of climate change. Misinformation is advanced through climate change denial and the anti-environmentalism movement ultimately benefits certain elite demographics. This has practical consequences for local acceptance and trust of RE project development.

Though this thesis supports wind energy implementation, it is primarily in support of strategic environmental policymaking. To implement sustainable solutions, environmental policies must examine the strengths and weaknesses of proposed projects to ensure their environmental protection and the infrastructure's longevity. This is a pragmatic approach that community RE has the potential to provide for both expansive and distinctive opposition. Resistance to wind energy has flourished due to traditional provincial frameworks. As discussed, characteristics of market and hierarchical governance are present in Alberta. Respectively, the economic prioritization within policy has strengthened dependency on fossil fuels, while the top-down approach to renewable energy policy making has allowed misinformation to strengthen. Collectively these obstacles, supported by installed governing structures, have left little leeway for any sustainable energy transition. Therefore, when approaching new energy alternatives, it is critical for policymakers to recognize alternative forms of governance.

5.2: The Opportunities for Community Governance

Can community governance create effective policy initiatives to promote and sustain a transition to renewable energy? The concept of community governance has been explored in a variety of ways, notably through its opportunities and challenges. Though community governance is an implemented approach that has had success, I argue that within this case the concept of community governance is too generalized for long term use in Alberta. To extend Bednar and Henstra's (2018) typology, this paper introduces community RE as having mitigation potential for wind energy implementation. As repeatedly mentioned, strategic policy planning is required to address multifaceted issues, and community RE can provide this.

To answer the question of the effectiveness of community governance - community governance alone would not be able to provide effective policy initiatives to renewable energy

mitigation in the context of Alberta. The original framework of this thesis was to showcase why community governance would work; however, further research had illustrated the prominent issues of using this approach. This paper acknowledges the benefits of community governance's ideology, but ultimately finds community RE as a more realistic approach. The policy obstacles presented throughout my thesis are embedded into the political, economic, and social structures of Alberta. Changing the status quo to transition towards wind energy would not be an easy feat. As indicated with the CLP, significant changes are oftentimes met with resistance. With this, a general change in governance would meet similar obstacles and be unsuccessful with mitigating the prevailing issues surrounding wind energy. As Bednar and Henstra (2018) highlight, a shift in governance does not have to be absolute - variance between modes of governance is possible (149). While community governance is the most appropriate form of governance for renewable energy implementation, specifically wind energy, fully adopting this approach would not be reasonable. Market and hierarchy governance are present structures within Alberta that need to be recognized. With this, the goal is not to entirely discard the present structure, but to diversify governance and resources through acknowledgement of its vulnerabilities. Thus, the call for community RE does not necessarily mean the eradication of all current forms of governance, rather a shift to better institutionally support wind energy. This plan of action calls for strategic environmental policymaking and an acknowledgment of the scale of implemented governance.

This question prompts three lessons. First, policy changes that strengthen wind energy implementation are attainable. Looking at the renewable energy policy initiatives in Alberta between 2010 to 2022 presented in *Figure 3.4*, it is evident that there has been a general stagnation regarding renewable energy initiatives except during former Premier Notley's government. The abilities of left progressivism were tested during this time. The NDP had

indeed infiltrated the conservative-based immobilization of wind energy and proposed new outlooks on the issue through alternative policy initiatives, such as the REP. Though progress was limited, this approach illustrates that wind energy acceptance may not be fully achieved, but it can become an increasingly acknowledged alternative with an unbiased frame of reference.

With this, the second lesson is that strategic policy implementation needs to be put into place for wind energy to begin to be accepted in Alberta. An approach positioned within community governance and solicited through community RE has been discussed as a potential answer to this puzzle. However, it is necessary to recognize that intentions and actions need to correspond. This stems from the general theme that this paper has produced - reform instead of abolition. This notion is pragmatic with its consideration of the gravity of the ongoing policy obstacles highlighted throughout the paper. With the current limited government structure, the oil-driven political economy, and the widespread anti-environmentalism ideology, any drastic change to the current circumstances would prove to be futile. If community RE was to be considered, implementation would need to be gradual and support the key characteristics of community governance and community RE. With this, deeper reasoning for wind energy can be found, and opening up policymaking to the community through community RE may initiate the finding of middle ground - or at least start meaningful conversations about environmental sustainability.

The final lesson is the power that the community can hold. As Hager (2015) explains, "[l]ocal action is shaped initially by the political opportunity structure, but it can also reshape that structure" (2). This thesis has discussed varying degrees of local participation. While I conclude that community RE needs to be strategically introduced in Alberta, any level of community influence is beneficial. The province has to overcome many factors before getting to

a position in which the community can obtain increased steering potential. Many people want what is good for their community but believe that environmentalist transitions will pose a threat. The power of community RE can mitigate these anxieties and consequently set up a framework for moving forward with community authority. There is a present urge to protect the community. With this, policies can be made with the foundation of community's power to help educate. Returning to *Figure 4.1,* Alberta needs to first accomplish substantial awareness of wind energy - through mitigation - before moving towards participation and steering (Koirala et al., 2018: 35). Community RE provides this pathway to sustainable wind energy policies in a calculated manner.

5.3: Conclusion

This thesis has answered my research questions surrounding the inability of the current governance system and the possibilities of community governance. I have illustrated that the present governance model in Alberta is complicated by fossil fuel dependency and anti-environmentalism, and such policies are not sufficient to move the province towards renewable energy. From this, I have argued that governance and ideological challenges constraining renewable energy in Alberta can partly be addressed through community governance and strategic environmental policymaking.

I have demonstrated that governance is a constraint for Alberta's renewable energy, specifically wind energy by providing context of the provincial government structure by comparing natural resource policy in Alberta and Canada and a comparative provincial adaptation policy analysis of renewable energy policies between 2010 to 2022 to illustrate the slow progression toward RE. I have analyzed fossil fuel dependency in Alberta as a barrier to the wind energy transition. I introduced community RE and strategic environmental policymaking as

a potential approach to this issue. I included a discussion of Notley's government derived from the comparative policy analysis showcasing community governance characteristics. The analysis of the CLP and REP demonstrated that components of community governance had been implemented in the past to illustrate its future potential, given the proper policy resources.

The second constraint to wind energy that I presented was ideology. Anti-environmentalism in Alberta is a dynamic ideological barrier to wind energy implementation. I discussed the feasibility of community RE within such a setting. I have conducted this by using individual assessment and government intervention as exemplified factors that need to be considered while analyzing the scale in which community RE can be implemented. This analysis was based on Notley's RE initiatives derived from the comparative policy analysis. I have demonstrated that ideology is another constraint for Alberta's renewable energy implementation, specifically wind energy. Relating to my argument, this chapter contends that the value of methodical integration of community governance through strategic environmental policymaking alleviates deeply-rooted and polarizing beliefs.

My research questions have been answered by illustrating Alberta's complex governance and ideology issues and how community governance can approach such obstacles through community RE to mitigate the restrained renewable energy transition. In doing so, I have argued that governance and ideological challenges constraining renewable energy in Alberta can partly be addressed through community governance and strategic environmental policymaking. The intent of this thesis is not to be idealistic. Change is needed for renewable energy transition, but this is an ambitious task - and the puzzle of Alberta and wind energy illustrates this. Instead, the aim of my thesis is to contribute to the conversation of environmental policy in Alberta. By

specifically exploring the convoluted situation of wind energy resistance, it is evident that these policy obstacles are deeply embedded within the province.

The prevailing provincial structures have supported resistance. Such opposition has been demonstrated by the UCP government's decision to halt all renewable energy electricity projects on August 3rd, 2023 (Anderson, 2023). The temporary moratorium is contingent on the AUC's report that will be made to the government by February 29th, 2024 (French, 2023). While the government's reassessment has created uncertainty on the province's future with wind energy, it nonetheless creates an opportunity for analysis and progressive communication. Change is needed, but it needs to begin on the most fundamental level - the community - to adequately address these obstacles and allow concerns and opinions to be heard, rather than demands from higher positions that cause further divisions and apprehensions. Only then can a plan of action be strategized with the intention of feasibility. This is a task that community RE can orchestrate if attentively contrived through strategic environmental policymaking.

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